

MOBILE2 Sensitivity Analysis

Energy and Environmental Analysis, Inc.  
Arlington, VA

Prepared for  
Environmental Protection Agency  
Ann Arbor, MI

Mar 81



U.S. Department of Commerce  
National Technical Information Service

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MOBILE2 SENSITIVITY ANALYSIS

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Prepared for:

TEST AND EVALUATION BRANCH  
EMISSION CONTROL TECHNOLOGY DIVISION  
OFFICE OF MOBILE SOURCE AIR POLLUTION CONTROL  
OFFICE OF AIR, NOISE AND RADIATION  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
Ann Arbor, Michigan

Prepared By:

ENERGY AND ENVIRONMENTAL ANALYSIS, INC.  
1111 North 19th Street  
Arlington, Virginia 22209

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| 16. ABSTRACT<br><br><p>The purpose of this report is to examine the sensitivity of MOBILE2 to changes in some of the key input variables for low-altitude, non-California vehicle types. The principal product of this sensitivity analysis is a series of graphs and tables displaying the sensitivity of MOBILE2 emission predictions to various input variables (such as speed and temperature).</p> |                                                                                                    |                                                           |
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## TABLE OF CONTENTS

|                                                | <u>Page</u> |
|------------------------------------------------|-------------|
| 1. INTRODUCTION. . . . .                       | 1           |
| 2. ANALYSIS. . . . .                           | 2           |
| 2.1 General Observations . . . . .             | 2           |
| 2.2 Sensitivity of Specific Variables. . . . . | 3           |
| 3. FIGURES . . . . .                           | F-1         |
| 4. TABLES. . . . .                             | T-1         |



# LIST OF FIGURES

| <u>Number</u> |                                                                                                                    | <u>Page</u> |
|---------------|--------------------------------------------------------------------------------------------------------------------|-------------|
| 1             | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Light Duty Gasoline-Powered Vehicles . . . . .        | F-1         |
| 2             | Carbon Monoxide Exhaust Emission Rates by Model Year<br>Group -- Light Duty Gasoline-Powered Vehicles . . . . .    | F-2         |
| 3             | Oxides of Nitrogen Exhaust Emission Rates by Model Year Group --<br>Light Duty Gasoline-Powered Vehicles. . . . .  | F-3         |
| 4             | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Light Duty Gasoline-Powered Trucks 1. . . . .         | F-4         |
| 5             | Carbon Monoxide Exhaust Emission Rates by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 1 . . . . .    | F-5         |
| 6             | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 1 . . . . . | F-6         |
| 7             | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Light Duty Gasoline-Powered Trucks 2. . . . .         | F-7         |
| 8             | Carbon Monoxide Exhaust Emission Rates by Model Year Group --<br>Light Duty Gasoline-Powered Trucks 2. . . . .     | F-8         |
| 9             | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 2 . . . . . | F-9         |
| 10            | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Heavy Duty Gasoline-Powered Vehicles. . . . .         | F-10        |
| 11            | Carbon Monoxide Exhaust Emission Rates by Model Year Group --<br>Heavy Duty Gasoline-Powered Vehicles. . . . .     | F-11        |
| 12            | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Heavy Duty Gasoline-Powered Vehicles . . . . . | F-12        |
| 13            | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Light Duty Diesel-Powered Vehicles. . . . .           | F-13        |
| 14            | Carbon Monoxide Exhaust Emission Rates by Model Year Group --<br>Light Duty Diesel-Powered Vehicles. . . . .       | F-14        |

# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                      | <u>Page</u> |
|---------------|----------------------------------------------------------------------------------------------------------------------|-------------|
| 15            | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Light Duty Diesel-Powered Vehicles . . . . .     | F-15        |
| 16            | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Light Duty Diesel-Powered Trucks. . . . .               | F-16        |
| 17            | Carbon Monoxide Exhaust Emission Rates by Model Year<br>Group -- Light Duty Diesel-Powered Trucks . . . . .          | F-17        |
| 18            | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Light Duty Diesel-Powered Trucks . . . . .       | F-18        |
| 19            | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Heavy Duty Diesel-Powered Vehicles. . . . .             | F-19        |
| 20            | Carbon Monoxide Exhaust Emission Rates by Model Year<br>Group -- Heavy Duty Diesel-Powered Vehicles . . . . .        | F-20        |
| 21            | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Heavy Duty Diesel-Powered Vehicles . . . . .     | F-21        |
| 22            | Hydrocarbon Exhaust Emission Rates by Model Year Group --<br>Motorcycles . . . . .                                   | F-22        |
| 23            | Carbon Monoxide Exhaust Emission Rates by Model Year<br>Group -- Motorcycles. . . . .                                | F-23        |
| 24            | Oxides of Nitrogen Exhaust Emission Rates by Model Year<br>Group -- Motorcycles. . . . .                             | F-24        |
| 25            | Hydrocarbon Speed Correction Factors by Model Year Group --<br>Light Duty Gasoline-Powered Vehicles. . . . .         | F-25        |
| 26            | Carbon Monoxide Speed Correction Factors by Model Year<br>Group -- Light Duty Gasoline-Powered Vehicles . . . . .    | F-26        |
| 27            | Oxides of Nitrogen Speed Correction Factors by Model Year<br>Group -- Light Duty Gasoline-Powered Vehicles . . . . . | F-27        |
| 28            | Hydrocarbon Speed Correction Factors by Model Year Group --<br>Light Duty Gasoline-Powered Trucks 1. . . . .         | F-28        |

# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                            | <u>Page</u> |
|---------------|----------------------------------------------------------------------------------------------------------------------------|-------------|
| 29            | Carbon Monoxide Speed Correction Factors by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 1 . . . . .          | F-29        |
| 30            | Oxides of Nitrogen Speed Correction Factors by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 1 . . . . .       | F-30        |
| 31            | Hydrocarbon Speed Correction Factors by Model Year Group --<br>Light Duty Gasoline-Powered Trucks 2. . . . .               | F-31        |
| 32            | Carbon Monoxide Speed Correction Factors by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 2 . . . . .          | F-32        |
| 33            | Oxides of Nitrogen Speed Correction Factors by Model Year<br>Group -- Light Duty Gasoline-Powered Trucks 2 . . . . .       | F-33        |
| 34            | Hydrocarbon Speed Correction Factors by Model Year Group --<br>Motorcycles . . . . .                                       | F-34        |
| 35            | Carbon Monoxide Speed Correction Factors by Model Year<br>Group -- Motorcycles. . . . .                                    | F-35        |
| 36            | Oxides of Nitrogen Speed Correction Factors by Model Year<br>Group -- Motorcycles. . . . .                                 | F-36        |
| 37            | All Pollutants Speed Correction Factors -- Heavy Duty<br>Gasoline-Powered Vehicles . . . . .                               | F-37        |
| 38            | All Pollutants Speed Correction Factors -- Heavy Duty<br>Diesel-Powered Vehicles . . . . .                                 | F-38        |
| 39            | All Pollutants Speed Correction Factors -- Light Duty<br>Diesel-Powered Vehicles and Trucks. . . . .                       | F-39        |
| 40            | Bag 1 - Hydrocarbon Temperature Correction Factors by Model<br>Year Group -- Light Duty Gasoline-Powered Vehicles. . . . . | F-40        |
| 41            | Bag 2 - Hydrocarbon Temperature Correction Factors by Model<br>Year Group -- Light Duty Gasoline-Powered Vehicles. . . . . | F-41        |
| 42            | Bag 3 - Hydrocarbon Temperature Correction Factors by Model<br>Year Group -- Light Duty Gasoline-Powered Vehicles. . . . . | F-42        |

# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                                | <u>Page</u> |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|
| 43            | Bag 1 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Vehicles. . . . .    | F-43        |
| 44            | Bag 2 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Vehicles. . . . .    | F-44        |
| 45            | Bag 3 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Vehicles. . . . .    | F-45        |
| 46            | Bag 1 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Vehicles . . .    | F-46        |
| 47            | Bag 2 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Vehicles . . .    | F-47        |
| 48            | Bag 3 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Vehicles . . .    | F-48        |
| 49            | Bag 1 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . .        | F-49        |
| 50            | Bag 2 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . .        | F-50        |
| 51            | Bag 3 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . .        | F-51        |
| 52            | Bag 1 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . .    | F-52        |
| 53            | Bag 2 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . .    | F-53        |
| 54            | Bag 3 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . .    | F-54        |
| 55            | Bag 1 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . . | F-55        |
| 56            | Bag 2 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . . | F-56        |

# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                                | <u>Page</u> |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|
| 57            | Bag 3 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 1. . . . . | F-57        |
| 58            | Bag 1 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .        | F-58        |
| 59            | Bag 2 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .        | F-59        |
| 60            | Bag 3 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .        | F-60        |
| 61            | Bag 1 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .    | F-61        |
| 62            | Bag 2 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .    | F-62        |
| 63            | Bag 3 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .    | F-63        |
| 64            | Bag 1 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . . | F-64        |
| 65            | Bag 2 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . . | F-65        |
| 66            | Bag 3 - Oxides of Nitrogen Temperature Factors by Model Year Group -- Light Duty Gasoline-Powered Trucks 2. . . . .            | F-66        |
| 67            | Hydrocarbon Temperature Correction Factors by Model Year Group -- Heavy Duty Gasoline-Powered Vehicles . . . . .               | F-67        |
| 68            | Carbon Monoxide Temperature Correction Factors by Model Year Group -- Heavy Duty Gasoline-Powered Vehicles . . . . .           | F-68        |
| 69            | Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Heavy Duty Gasoline-Powered Vehicles. . . . .         | F-69        |
| 70            | Bag 1 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                | F-70        |

# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                                        | <u>Page</u> |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 71            | Bag 2 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                        | F-71        |
| 72            | Bag 3 - Hydrocarbon Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                        | F-72        |
| 73            | Bag 1 - Carbon Monoxide Temperature Correction Factors by Model Year Group - Motorcycles. . . . .                                      | F-73        |
| 74            | Bag 2 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                    | F-74        |
| 75            | Bag 3 - Carbon Monoxide Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                    | F-75        |
| 76            | Bag 1 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                 | F-76        |
| 77            | Bag 2 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                 | F-77        |
| 78            | Bag 3 - Oxides of Nitrogen Temperature Correction Factors by Model Year Group -- Motorcycles . . . . .                                 | F-78        |
| 79            | Hydrocarbon Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Vehicles. . . . . | F-79        |
| 80            | Hydrocarbon Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Trucks 1. . . . . | F-80        |
| 81            | Hydrocarbon Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Trucks 2. . . . . | F-81        |
| 82            | Hydrocarbon Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Heavy Duty Gasoline-Powered Vehicles. . . . . | F-82        |



# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                                               | <u>Page</u> |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 83            | Hydrocarbon Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- All Vehicles Combined.                               | F-83        |
| 84            | Carbon Monoxide Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Vehicles. . . . .    | F-84        |
| 85            | Carbon Monoxide Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Trucks 1. . . . .    | F-85        |
| 86            | Carbon Monoxide Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Trucks 2. . . . .    | F-86        |
| 87            | Carbon Monoxide Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Heavy Duty Gasoline-Powered Vehicles. . . . .    | F-87        |
| 88            | Carbon Monoxide Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- All Vehicles Combined. . . . .                   | F-88        |
| 89            | Oxides of Nitrogen Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Vehicles. . . . . | F-89        |
| 90            | Oxides of Nitrogen Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Trucks 1. . . . . | F-90        |
| 91            | Oxides of Nitrogen Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Light Duty Gasoline-Powered Trucks 2. . . . . | F-91        |
| 92            | Oxides of Nitrogen Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- Heavy Duty Gasoline-Powered Vehicles. . . . . | F-92        |
| 93            | Oxides of Nitrogen Exhaust Emission Rate Variations by Ambient Temperature and Calendar Year -- All Vehicles Combined. . . . .                | F-93        |

# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                                     | <u>Page</u> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 94            | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Gasoline-Powered Vehicles . . . .     | F-94        |
| 95            | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Gasoline-Powered Trucks 1 . . . .     | F-95        |
| 96            | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Gasoline-Powered Trucks 2 . . . .     | F-96        |
| 97            | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Heavy Duty Gasoline-Powered Vehicles . . . .     | F-97        |
| 98            | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Diesel-Powered Vehicles . . . . .     | F-98        |
| 99            | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Diesel-Powered Trucks . . . . .       | F-99        |
| 100           | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Heavy Duty Diesel-Powered Vehicles . . . . .     | F-100       |
| 101           | Hydrocarbon Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- All Vehicles Combined. . . . .                   | F-101       |
| 102           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Gasoline-Powered Vehicles .       | F-102       |
| 103           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Gasoline-Powered Trucks 1 .       | F-103       |
| 104           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Gasoline-Powered Trucks 2 . . . . | F-104       |
| 105           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Heavy Duty Gasoline-Powered Vehicles . . . . | F-105       |
| 106           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Diesel-Powered Vehicles . . . . . | F-106       |
| 107           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle Speed and Calendar Year -- Light Duty Diesel-Powered Trucks . . . . .   | F-107       |



# LIST OF FIGURES (Continued)

| <u>Number</u> |                                                                                                                                     | <u>Page</u> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 108           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Heavy Duty Diesel-Powered Vehicles . .    | F-108       |
| 109           | Carbon Monoxide Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- All Vehicles Combined. . . . .            | F-109       |
| 110           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Light Duty Gasoline-Powered Vehicles . | F-110       |
| 111           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Light Duty Gasoline-Powered Trucks 1 . | F-111       |
| 112           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Light Duty Gasoline-Powered Trucks 2 . | F-112       |
| 113           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Heavy Duty Gasoline-Powered Vehicles . | F-113       |
| 114           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Light Duty Diesel-Powered Vehicles . . | F-114       |
| 115           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Light Duty Diesel-Powered Trucks . . . | F-115       |
| 116           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- Heavy Duty Diesel-Powered Vehicles . . | F-116       |
| 117           | Oxides of Nitrogen Exhaust Emission Rate Variations by Vehicle<br>Speed and Calendar Year -- All Vehicles Combined. . . . .         | F-117       |

# LIST OF TABLES

| <u>Number</u> |                                                                                                                                                                                                                  | <u>Page</u> |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, HC Emission Factors, Speed 5 miles per hour (mph). . . . . | T-1         |
| 2             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, HC Emission Factors, Speed = 10 mph. . . . .               | T-9         |
| 3             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, HC Emission Factors, Speed = 19.6 mph. . . . .             | T-17        |
| 4             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, HC Emission Factors, Speed = 35 mph. . . . .               | T-25        |
| 5             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, HC Emission Factors, Speed = 50 mph. . . . .               | T-33        |
| 6             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, HC Emission Factors, Speed = 55 mph. . . . .               | T-41        |
| 7             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, CO Emission Factors, Speed = 5 mph. . . . .                | T-49        |
| 8             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, CO Emission Factors, Speed = 10 mph. . . . .               | T-57        |
| 9             | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, CO Emission Factors, Speed = 19.6 mph. . . . .             | T-65        |

# LIST OF TABLES (Continued)

| <u>Number</u> |                                                                                                                                                                                                                   | <u>Page</u> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 10            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, CO Emission Factors, Speed = 35 mph. . . . .                | T-73        |
| 11            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, CO Emission Factors, Speed = 50 mph. . . . .                | T-81        |
| 12            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, CO Emission Factors, Speed = 55 mph. . . . .                | T-89        |
| 13            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, NO <sub>x</sub> Emission Factors, Speed = 5 mph . . . . .   | T-97        |
| 14            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, NO <sub>x</sub> Emission Factors, Speed = 10 mph. . . . .   | T-105       |
| 15            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, NO <sub>x</sub> Emission Factors, Speed = 19.6 mph. . . . . | T-113       |
| 16            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, NO <sub>x</sub> Emission Factors, Speed = 35 mph. . . . .   | T-121       |
| 17            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, NO <sub>x</sub> Emission Factors, Speed = 50 mph. . . . .   | T-129       |
| 18            | Sensitivity of the MOBILE2 Emission Factors to Variations in Vehicle Speed, Ambient Temperature, and Cold/Hot Start VMT Percentages by Calendar Year, NO <sub>x</sub> Emission Factors, Speed = 55 mph. . . . .   | T-137       |

# LIST OF TABLES (Continued)

| <u>Number</u> |                                                                                                                                                                                                                                     | <u>Page</u> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 19            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, HC Emission Factors, Air Conditioning Usage = 0% . . . . .                | T-145       |
| 20            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, HC Emission Factors, Air Conditioning Usage = 50%. . . . .                | T-146       |
| 21            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, HC Emission Factors, Air Conditioning Usage = 100% . . . . .              | T-147       |
| 22            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, CO Emission Factors, Air Conditioning Usage = 0% . . . . .                | T-148       |
| 23            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, CO Emission Factors, Air Conditioning Usage = 50%. . . . .                | T-149       |
| 24            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, CO Emission Factors, Air Conditioning Usage = 100% . . . . .              | T-150       |
| 25            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, NO <sub>x</sub> Emission Factors, Air Conditioning Usage = 0% . . . . .   | T-151       |
| 26            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, NO <sub>x</sub> Emission Factors, Air Conditioning Usage = 50%. . . . .   | T-152       |
| 27            | Sensitivity of the MOBILE2 Emission Factors to Variations in Air Conditioning Usage, Extra Vehicle Loads, and the Percentage of Vehicles Towing Trailers, NO <sub>x</sub> Emission Factors, Air Conditioning Usage = 100% . . . . . | T-153       |

## 1. INTRODUCTION

The purpose of this report is to describe the work performed by EEA, Inc. for Task Order No. 9 of EPA Contract No. 68-03-2888. The objective of this task order was to examine the sensitivity of MOBILE2 to changes in some of the key input variables for low altitude, non-California vehicle types. The principal product of this sensitivity analysis is a series of graphs and tables displaying the sensitivity of MOBILE2 emission predictions to various input variables (such as speed and temperature).

The graphs in this report are also divided into two major groups. The first group (Figures 1-78) illustrates the MOBILE2 emission factors, speed correction factors, and temperature correction factors on a model year basis. Separate graphs are included for each vehicle type and each pollutant. The pollutants are hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen ( $\text{NO}_x$ ). HC emissions are total HC emissions, which includes both methane and non-methane HC, and also includes evaporative and crankcase emissions. The second group (Figures 79-117) of graphs illustrates the emission results of MOBILE2 under various speed and temperature conditions for the 1982 and 1987 calendar years. Again, there are separate graphs for each vehicle type and each pollutant.

Due to time and cost constraints, this report does not include disaggregated emissions projections for each vehicle type represented in MOBILE2. The purpose of the report is to examine the sensitivity of major vehicle types; thus, two categories of light duty gasoline trucks (LDGT1 and LDGT2) have been combined into one (LDGT), and motorcycles were not reported as a separate category. Graphic illustrations of emissions of "all vehicles combined" represents VMT-weighted emissions of the light MOBILE2 vehicle types: light duty gasoline vehicles (LDGV), LDGT1, and LDGT2, heavy duty gasoline vehicles (HDGV), light duty diesel vehicles

(LDDV), light duty diesel trucks (LDDT), heavy duty diesel vehicles (HDDV), and motorcycles (MC). The same emissions of all vehicles combined are reported in Tables as "CEF" or composite (VMT-weighted) emission factors.

The tables are organized into two major groups. The first group (Tables 1-18) examines the sensitivity of the MOBILE2 emission factors to variations in vehicle speed, ambient temperature, and the percentage of vehicle miles traveled (VMT) in the cold and hot start modes. The second group (Tables 19-27) shows how changes in air conditioning use, the percentage of vehicles with extra loads, and the percentage of vehicles towing trailers affect the MOBILE2 emission factors.



## 2. ANALYSIS

### 2.1 GENERAL OBSERVATIONS

Although the tables and graphs should be examined in detail to note the sensitivity of MOBILE2 emission predictions to changes in various input variables under the specific conditions of interest, a number of general observations can be made from the information presented in this report. They are:

1. As would be expected, MOBILE2 predicted emissions decrease with time (calendar year) as newer vehicles with more stringent emission standards become an increasing proportion of the vehicle fleet.
2. In general, HC and CO emissions decrease as vehicle speed increases. NO<sub>x</sub> emissions increase with vehicle speed. These relationships hold for all vehicle types.
3. Ambient temperature has no effect on diesel vehicle emissions. For ambient temperatures between 0°F and 68°F, emissions from gasoline-powered vehicles decrease as ambient temperature increases. The temperature correction factor is assumed to be one between 68°F and 86°F for these vehicles. For ambient temperatures between 86°F and 110°F, NO<sub>x</sub> emissions decrease as temperatures increase. However, HC and CO emissions increase with temperature over this range.
4. An increase in the percentage of vehicle miles traveled (VMT) in the cold start mode increases HC and CO emissions from gasoline-powered vehicles. Cold start effects are not as significant for NO<sub>x</sub>. Diesel vehicle emissions are not affected by cold or hot start VMT percentages.
5. Increases in air conditioning usage, the percentage of vehicles with extra loads, and the percentage of vehicles towing trailers all serve to increase the MOBILE2 emission estimates.

## 2.2 SENSITIVITY OF SPECIFIC VARIABLES

As noted in the introduction to this report, the figures are divided into two major groups. Figures 1-78 detail the sensitivity of MOBILE2 predictions by model year group. Figures 1-24 show for each vehicle type and for each MOBILE2 pollutant (HC, CO, and  $\text{NO}_x$ ) how emissions are predicted to change with accumulated mileage for each model year group. These base case estimates are calculated using the following MOBILE2 input variable values: speed, 19.6 mpg; temperature between 68-86°F; cold start VMT fraction 20.6 percent, and hot start VMT fraction 27.3 percent. These figures generally show how emissions are predicted to decrease with newer model year vehicles. Light duty gasoline-powered cars (LDGV) and trucks (LDGT1 and LDGT2) show the greatest predicted improvements from pre-1968 through 1985 model years. These predicted improvements reflect the early regulation of the emissions of these vehicle types and the increasing sophistication of emission control technology through 1985 to meet increasingly stringent standards. Heavy duty diesels show no predicted improvements until model year 1985. Motorcycles show improvements for the first time in model year 1978, when motorcycle emissions were first regulated.

While emissions of HC and CO decrease consistently for all vehicle types,  $\text{NO}_x$  emissions do not. Generally in the earliest years of HC and CO improvement,  $\text{NO}_x$  emissions actually increase. The  $\text{NO}_x$  emissions of LDGV's, for example, are higher for model year 1968-72 vehicles than for pre-1968 vehicles. Motorcycle  $\text{NO}_x$  emissions are lowest for pre-1978 vehicles, higher for 1978-1979 vehicles, and highest for post-1980 vehicles. These trends reflect the technological trade-off between HC and CO control, and reduction of  $\text{NO}_x$ . The introduction of three-way catalysts into the LDGV fleet in the 1981 and later model years results in predicted decreases in all three regulated pollutants.

Figures 25-39 show how the MOBILE2 speed correction factors vary with vehicle speed by model year group for each vehicle type for each pollutant. Average temperature and percent VMT in cold/hot start modes are maintained at base case values. The speed correction factor graphs are based on six evaluation points: 5, 10, 19.6, 35, 50, and 55 miles per hour. For the most part, HC and CO speed correction factors decrease and  $\text{NO}_x$  speed correction factors increase with vehicle speed. However, there is much greater model year variation in the correction factors for  $\text{NO}_x$  than for HC and CO.  $\text{NO}_x$  emissions vary more at different speeds and for different model years than do HC and CO emissions. The  $\text{NO}_x$  speed correction factor relationship is somewhat different for diesels as can be seen from Figures 38 and 39.  $\text{NO}_x$  emissions continue to decrease from idle through 35 mph for diesels, and reach a lower maximum than  $\text{NO}_x$  emissions of comparable gasoline engines.

Figures 40-78 illustrate the ranges of temperature correction factors for each pollutant between 0°-110°F. The temperature correction factor graph were plotted on the basis of seven data points: 0, 15, 30, 50, 65, 90, and 110°F.

Figures 79-93 describe the sensitivity of MOBILE2 predictions to changes in ambient temperature for calendar years 1982 and 1987. The predictions for 1982 include estimated emissions of model year 1963-1982 vehicles; 1987 predictions are based on model year 1968-1987 vehicles.

In general, HC and CO emissions decrease with increases in temperature from 0-80°F; above 80°F, HC and CO begin to increase with temperature increases.  $\text{NO}_x$  emissions also decrease with increase in temperature, particularly at temperatures above 80°F. The data points used to define these curves are the following ambient temperatures: 0, 25, 50, 75, and 100°F.

The curves for 1982 and 1987 are essentially parallel, reflecting the same rates of deterioration of emission control components for vehicles in each fleet, but different assumed zero-mile emissions (intercepts). The exception is predicted HC and CO emissions of diesels (both light and heavy duty). For these vehicles, there is little or no variation in emission rates between calendar year 1982 and 1987.

Figures 94-117 illustrate the sensitivity of MOBILE2 predictions to changes in average vehicle speeds for calendar years 1982 and 1987. HC and CO emissions decline as vehicle speeds increase, leveling out to a constant rate of emissions at about 45 mph.  $\text{NO}_x$  emissions vary directly and continuously with increasing average speed up to at least 55 mph. Again, the curves for calendar years 1982 and 1987 are approximately parallel, reflecting similar deterioration rates, but different intercepts. The data points used to define these curves are the following vehicle speeds: 5, 10, 19.6, 35, 50, and 55 mph.

Tables 1-18 show the sensitivity of the MOBILE2 emission factors to variations in vehicle speed, ambient temperature, and cold/hot start VMT percentages by calendar year. Each table lists MOBILE2 emission factors for 1975, 1980, 1982, 1987, 1990 and 1995 for six vehicle types and all vehicles combined for HC, CO, or  $\text{NO}_x$  at an assumed vehicle speed. Within each table, MOBILE2 emission factors are listed for six combinations of cold/hot start VMT percentages and five ambient temperatures. The subheading "PCCN PCHC PCCC" indicates the percentage of VMT in cold and hot starts for non-catalyst and catalyst equipped vehicles. General observations of the trends shown by the data in these tables are noted in Section 2.1.

Tables 19-27 show the sensitivity of the MOBILE2 emission factors to variations in air conditioner usage, extra vehicle loads, and the percentage of vehicles towing trailers. Although it is not noted on the tables, the ambient temperature listed in each table is used along with

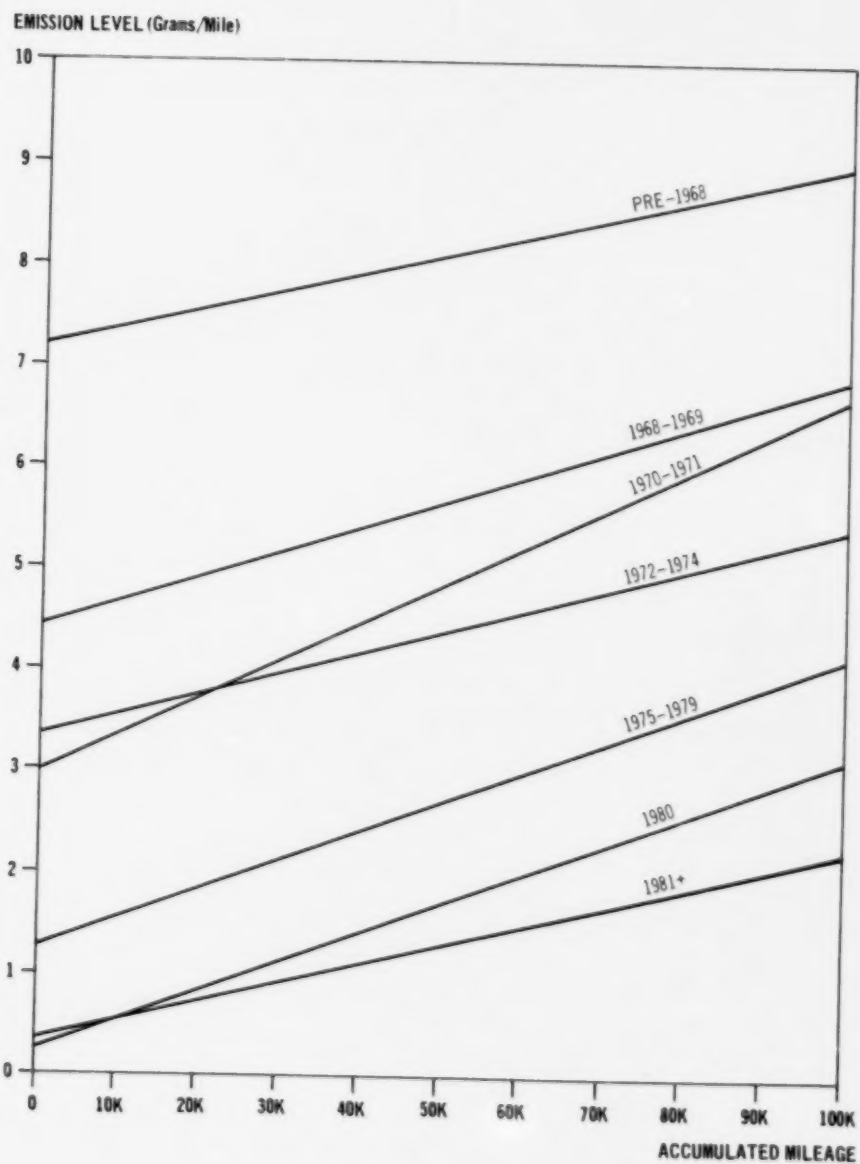
an assumed wet bulb temperature to estimate the percentage of light-duty vehicles and light-duty trucks which are using their air conditioners. Tables 19, 22, and 25 assume that no air conditioners are in use (ambient temperature is 71°F). Tables 20, 23, and 26 assume that of those vehicles with air conditioners, 50 percent are in use (ambient temperature is 79°F). Tables 21, 24, and 27 assume 100 percent air conditioning usage (ambient temperature is 86°F).

The emission factors reported in Tables 19-27 do not show dramatic increases in emissions due to air conditioner use, extra load, or trailer towing individually. The cumulative effect of these conditions however, can be substantial.

The 1980 calendar year LDGV emission factors in Tables 25 and 27 can be used to illustrate the cumulative effect. If zero values are assumed for AC usage, extra load, and trailer towing, the 1980 LDGV NO<sub>x</sub> emission factor is 2.86 grams per mile. Assuming 100 percent AC usage and 10 percent extra load and trailer towing percentages gives a 1980 LDGV NO<sub>x</sub> emission factor of 3.41 grams per mile, an increase of 20 percent over the no AC, no extra load, no towing case. This scenario is very likely to occur in a majority of U.S. cities during the summer months. Air quality planners should try to estimate the extent of AC usage, extra load, and trailer towing and include these estimates in MOBILE2 runs in order to predict emissions more precisely.

EXHAUST EMISSION RATES

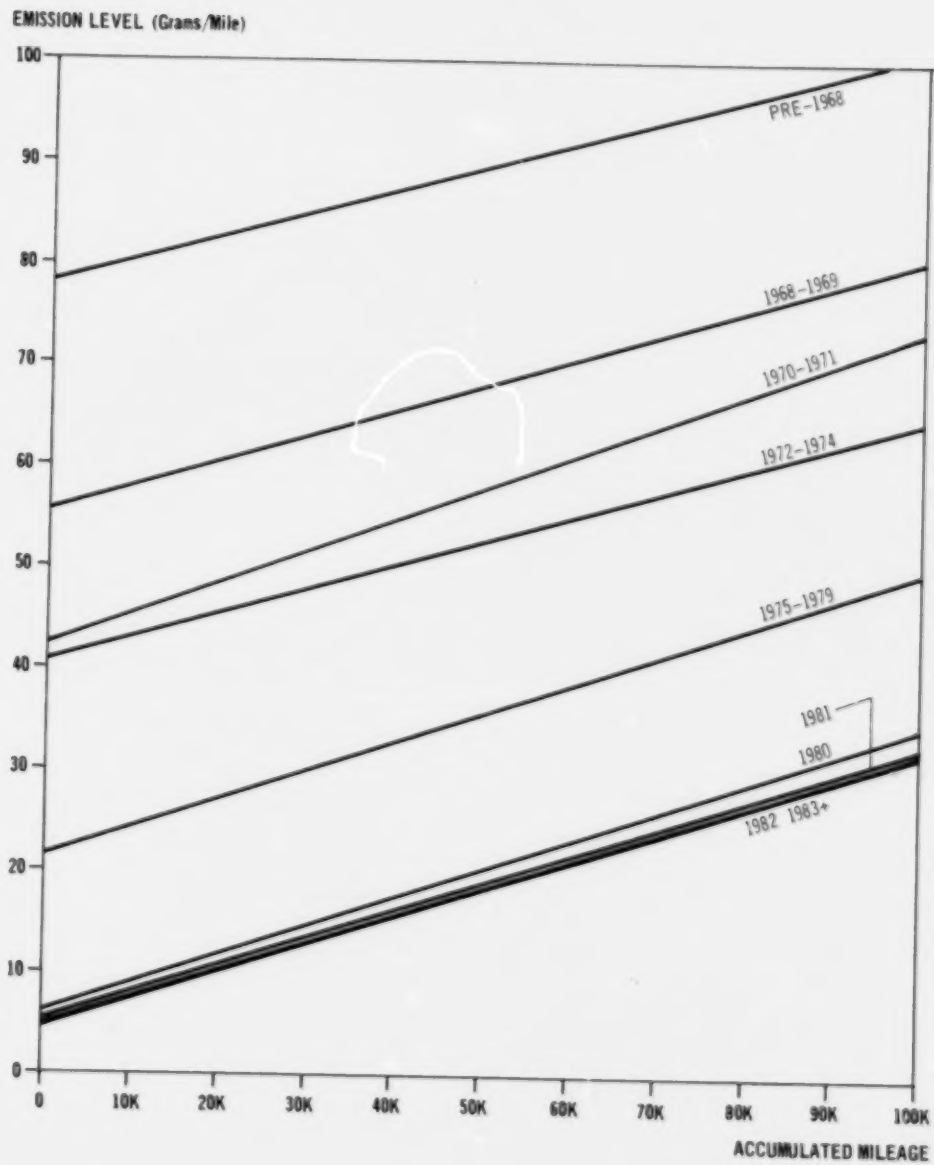
FIGURE 1  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS  
LOW ALTITUDE 49-STATE





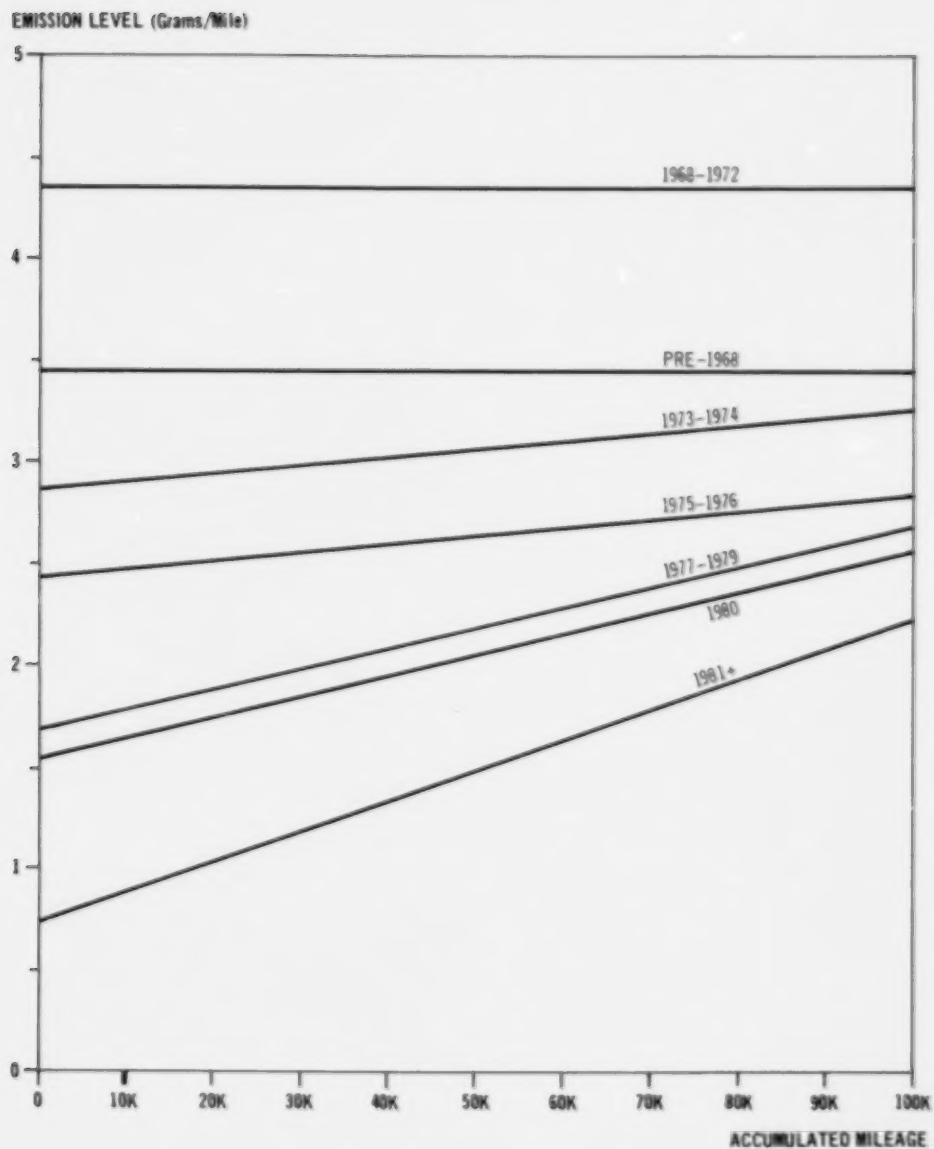
EXHAUST EMISSION RATES

FIGURE 2  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

FIGURE 3  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE

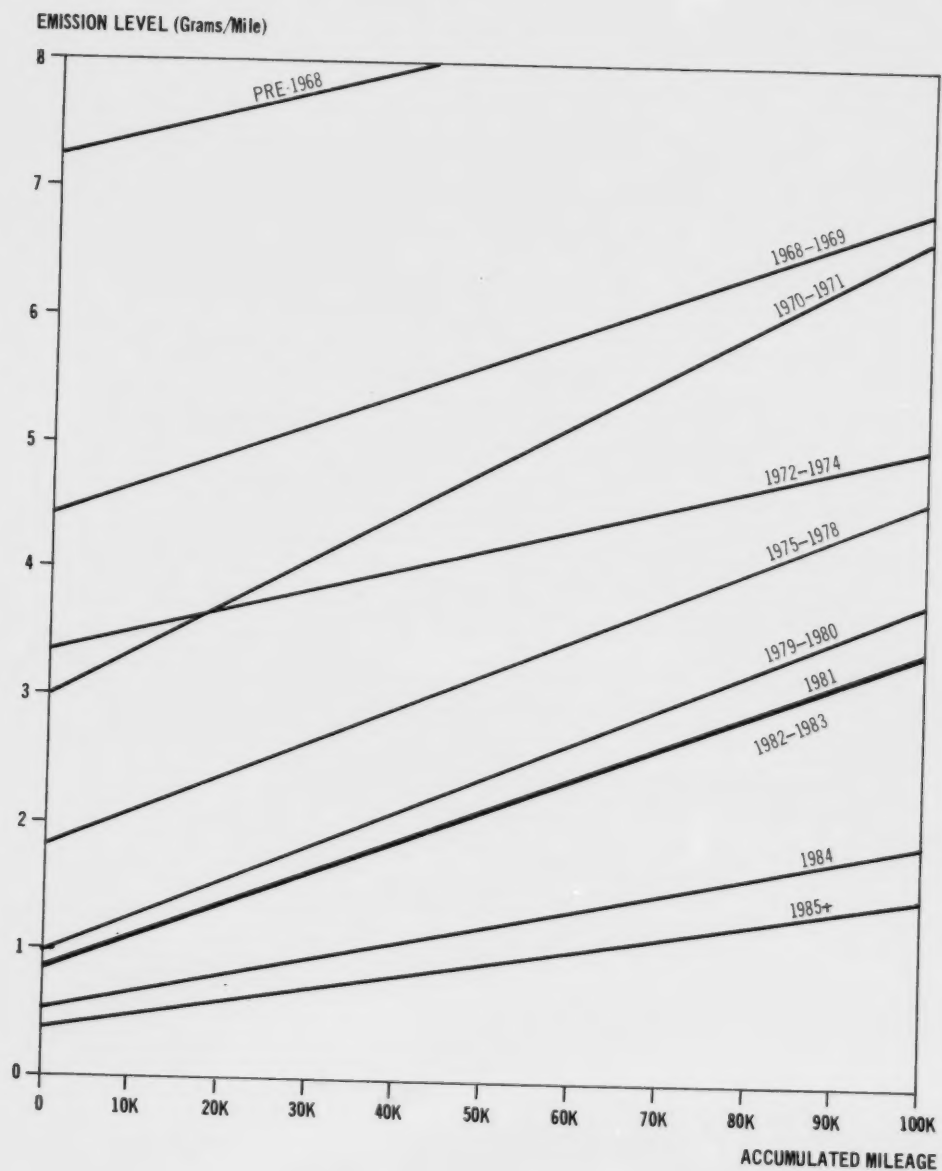


EXHAUST EMISSION RATES

FIGURE 4

LIGHT DUTY GASOLINE-POWERED TRUCKS I  
HYDROCARBONS

LOW ALTITUDE 49-STATE

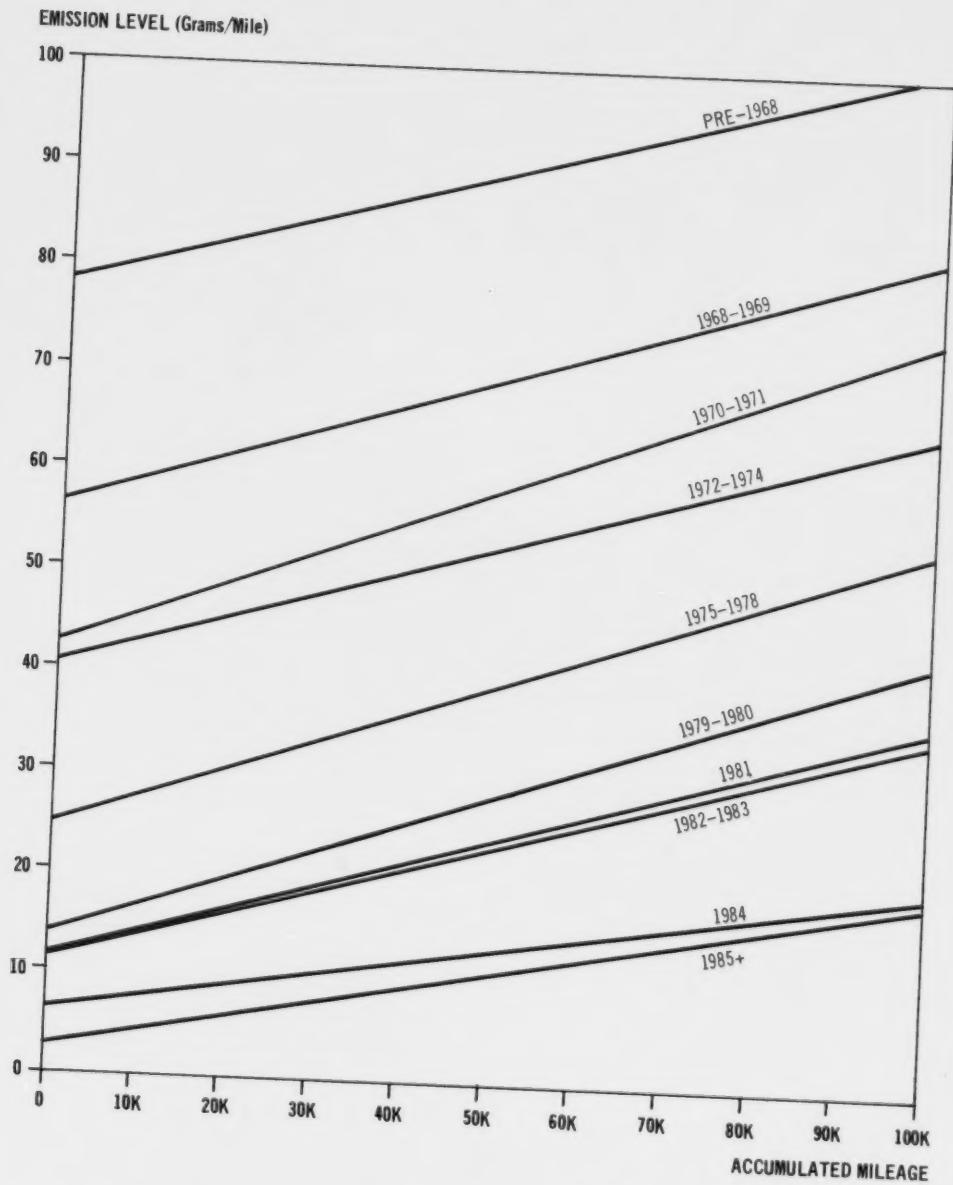


EXHAUST EMISSION RATES

FIGURE 5

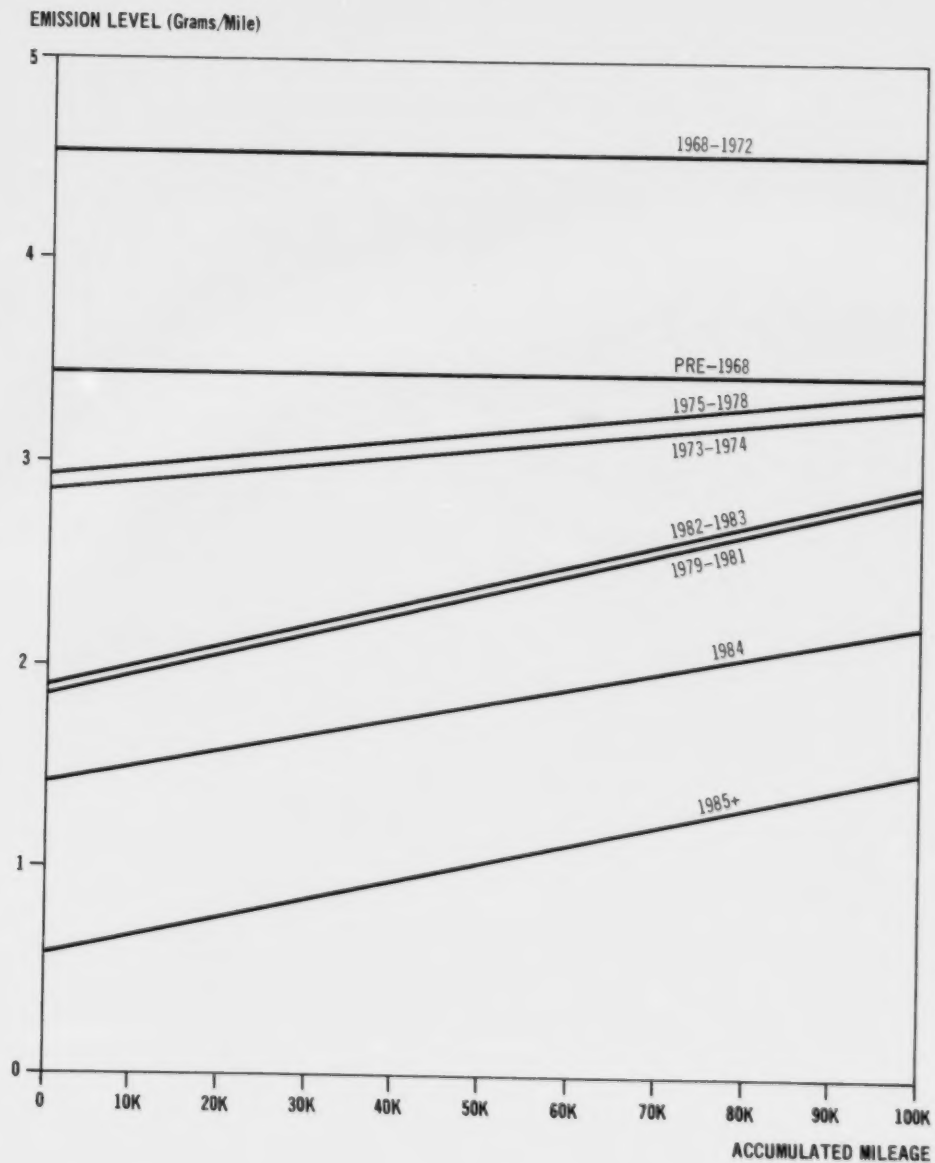
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
CARBON MONOXIDE

LOW ALTITUDE 49-STATE



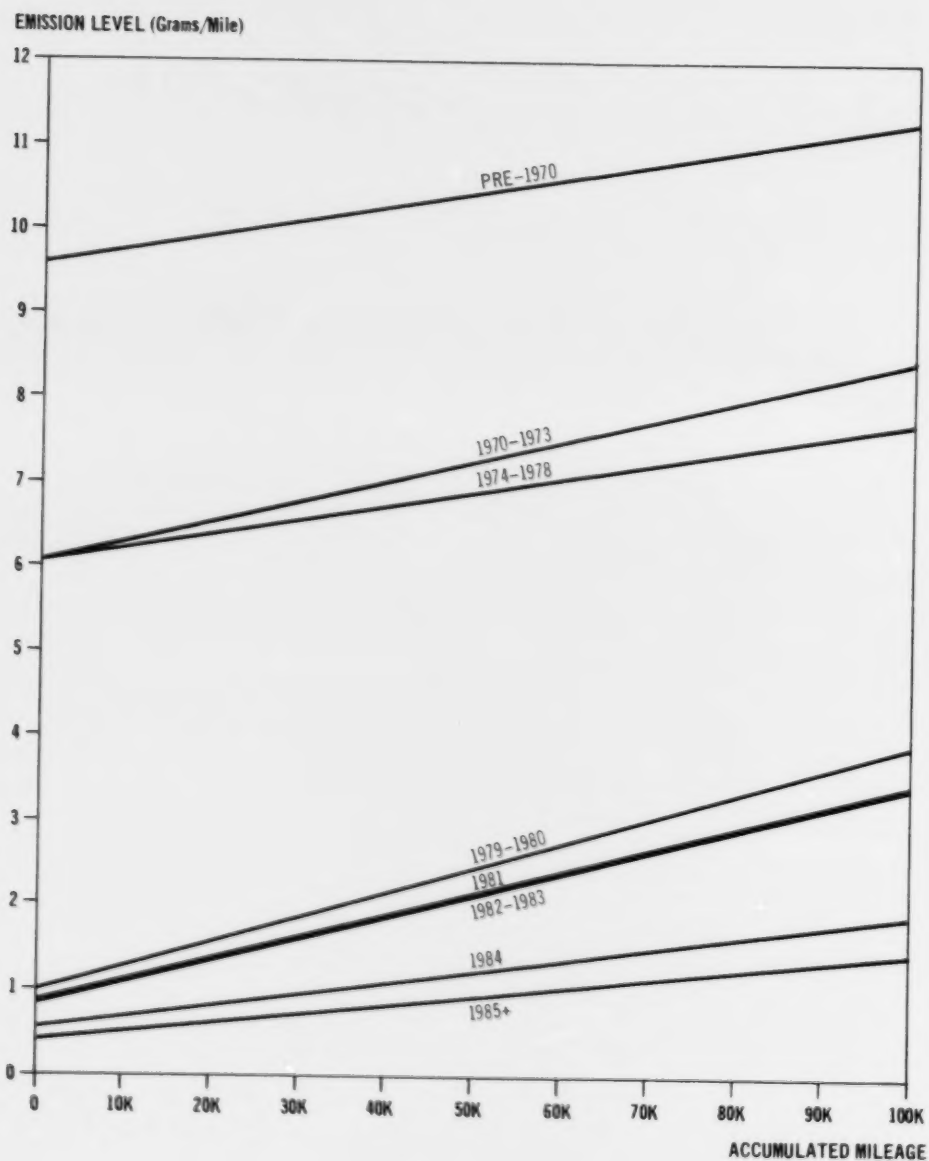
EXHAUST EMISSION RATES

FIGURE 6  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

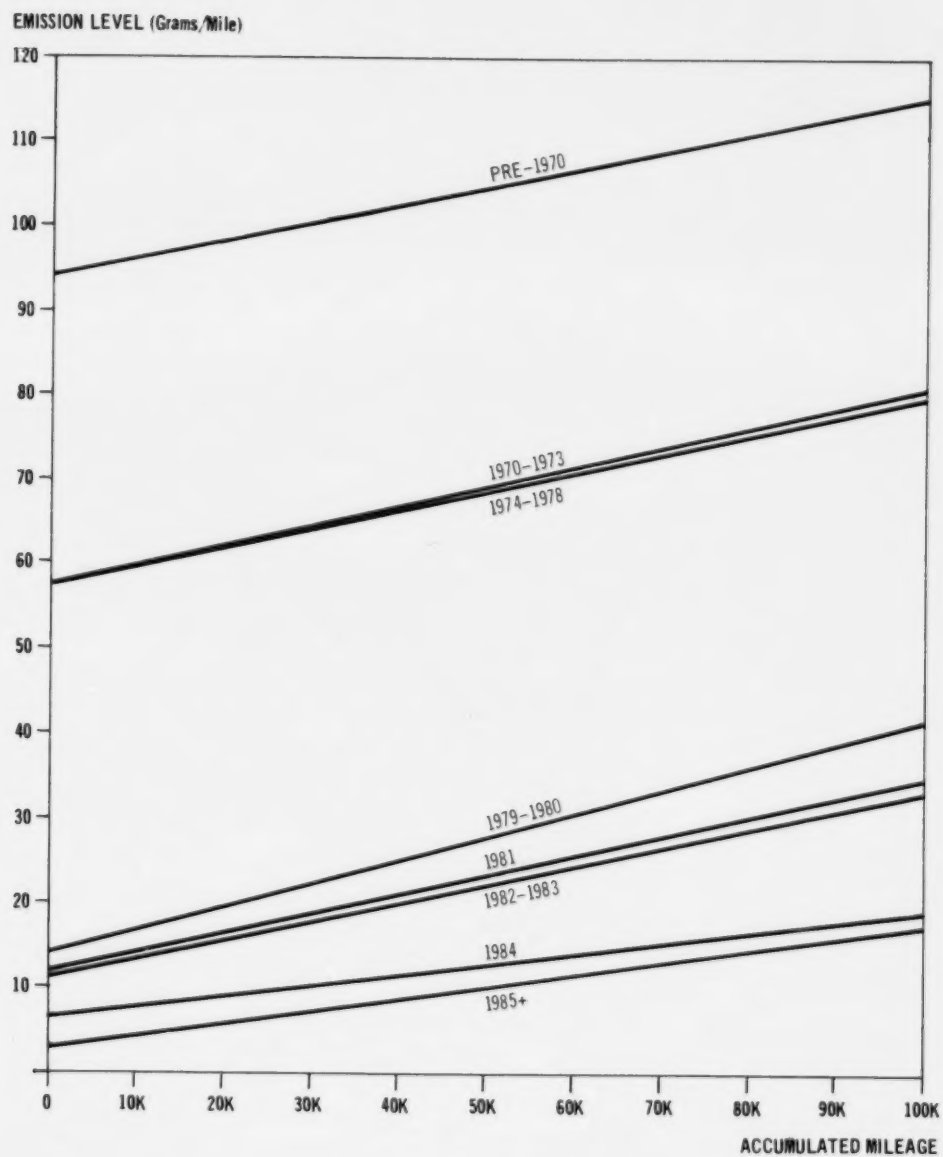
FIGURE 7  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
HYDROCARBONS  
LOW ALTITUDE 49-STATE





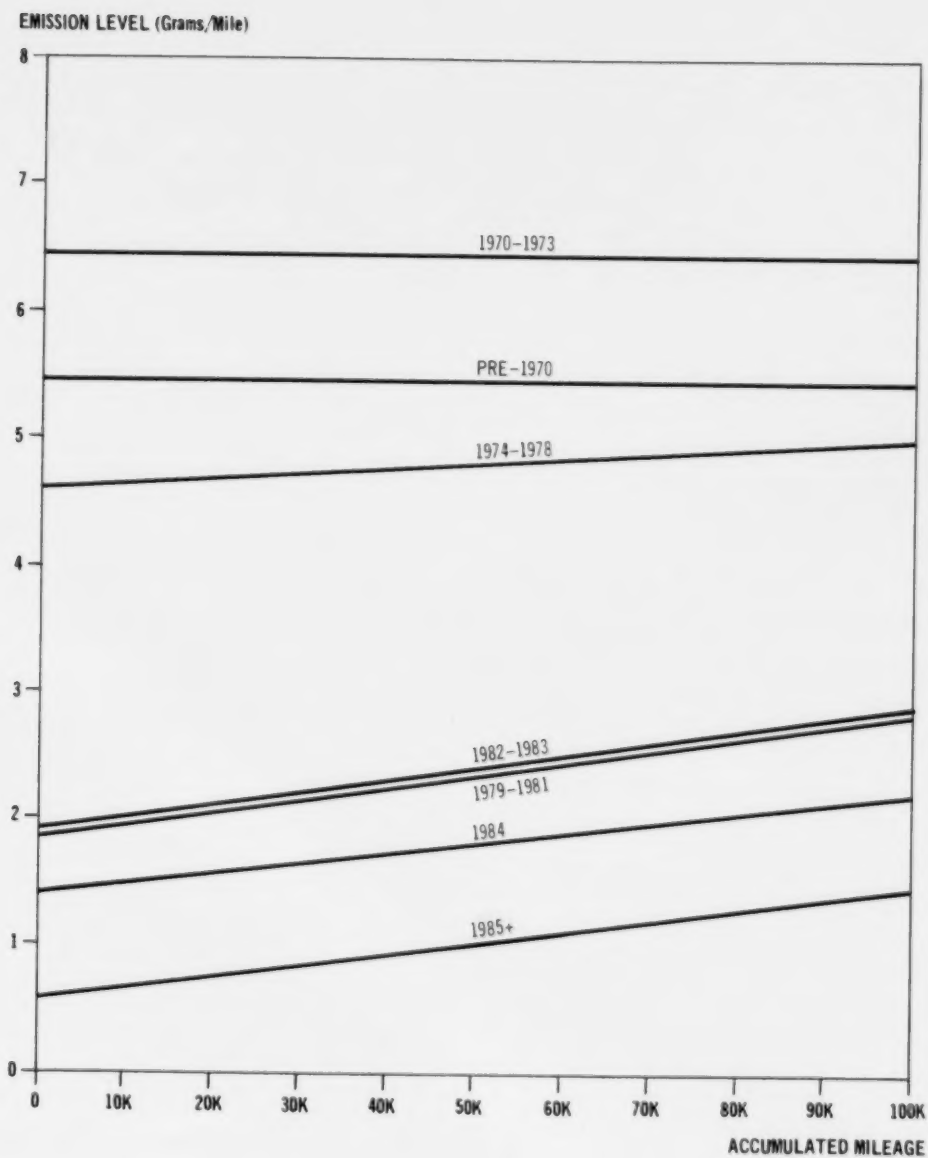
EXHAUST EMISSION RATES

FIGURE 8  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

FIGURE 9  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE

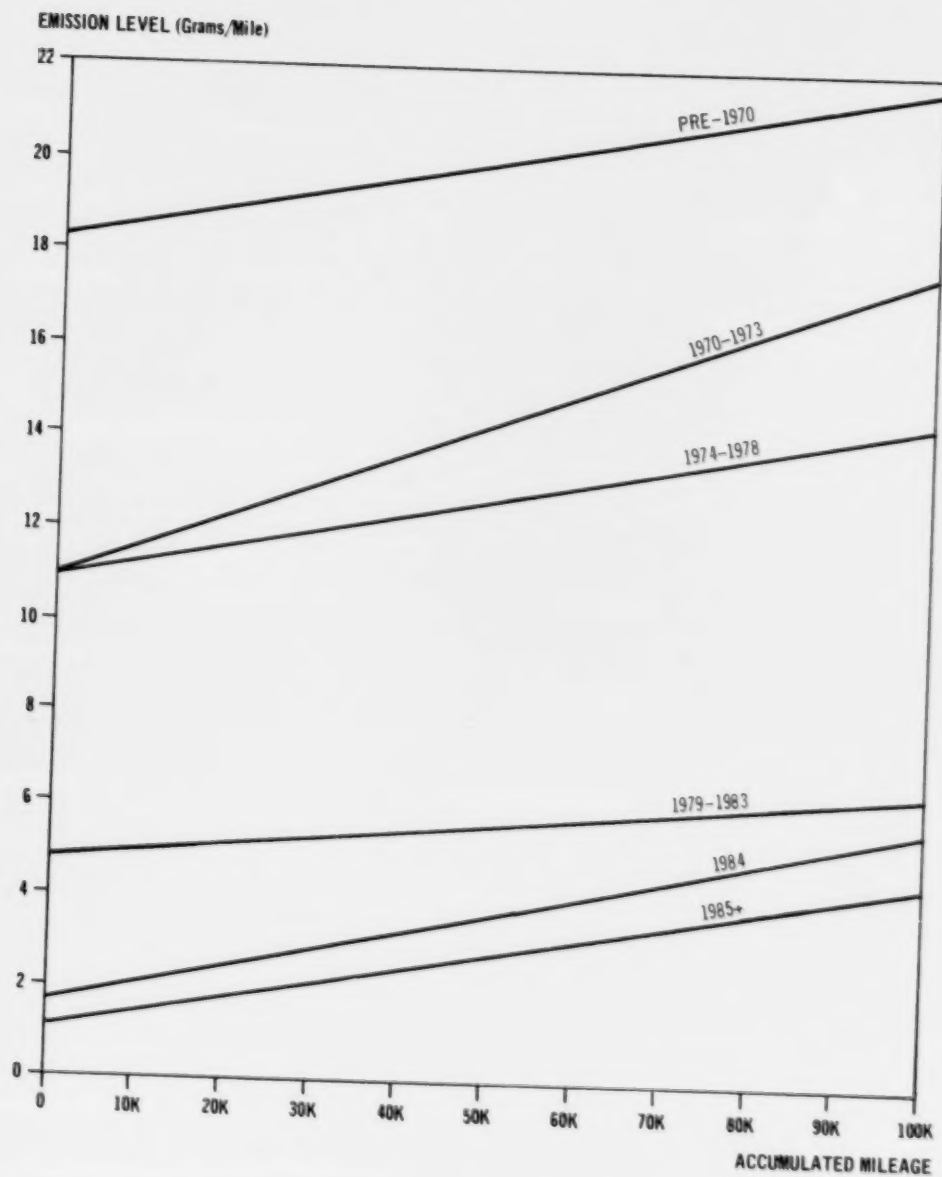


EXHAUST EMISSION RATES

FIGURE 10

HEAVY DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS

LOW ALTITUDE 49-STATE



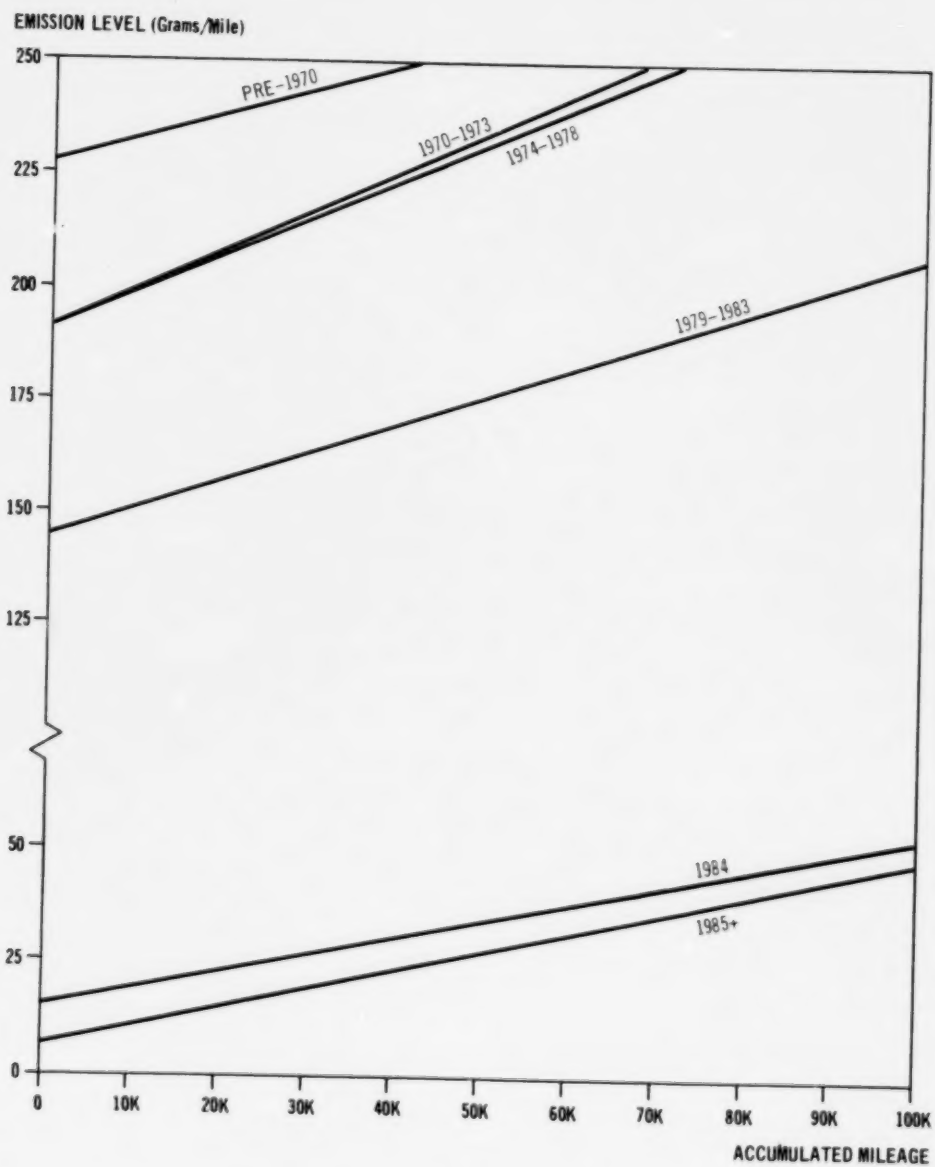
EXHAUST EMISSION RATES

FIGURE 11

HEAVY DUTY GASOLINE-POWERED VEHICLES

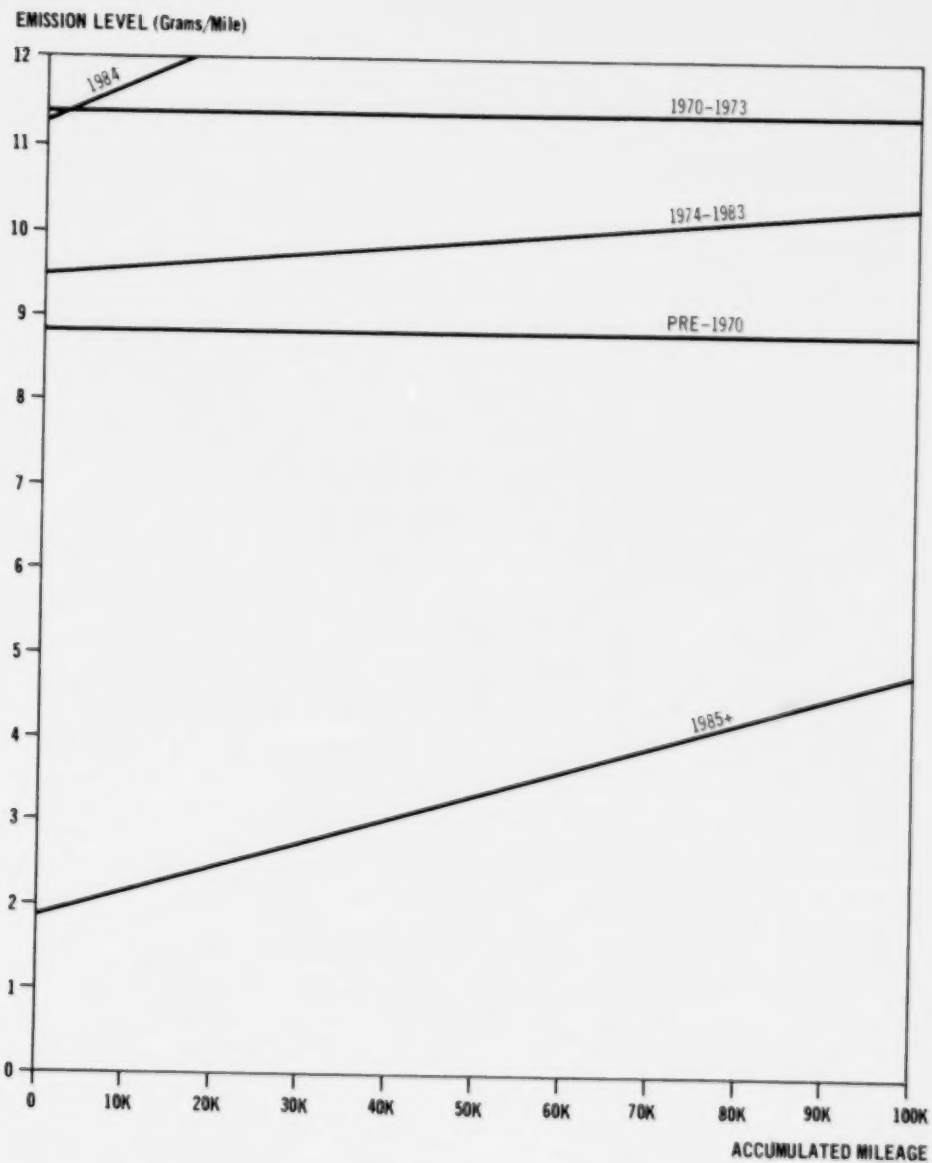
CARBON MONOXIDE

LOW ALTITUDE 49-STATE



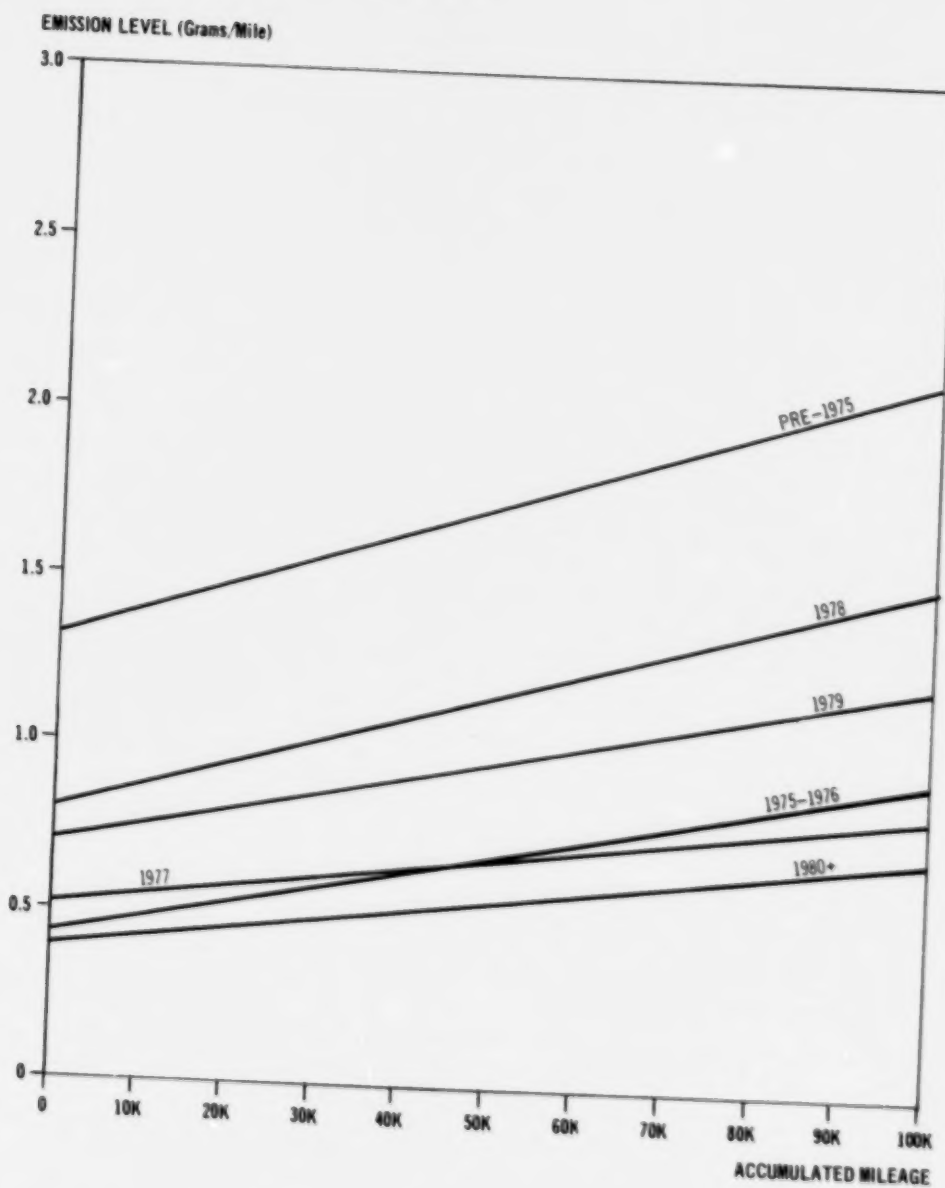
EXHAUST EMISSION RATES

FIGURE 12  
HEAVY DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE



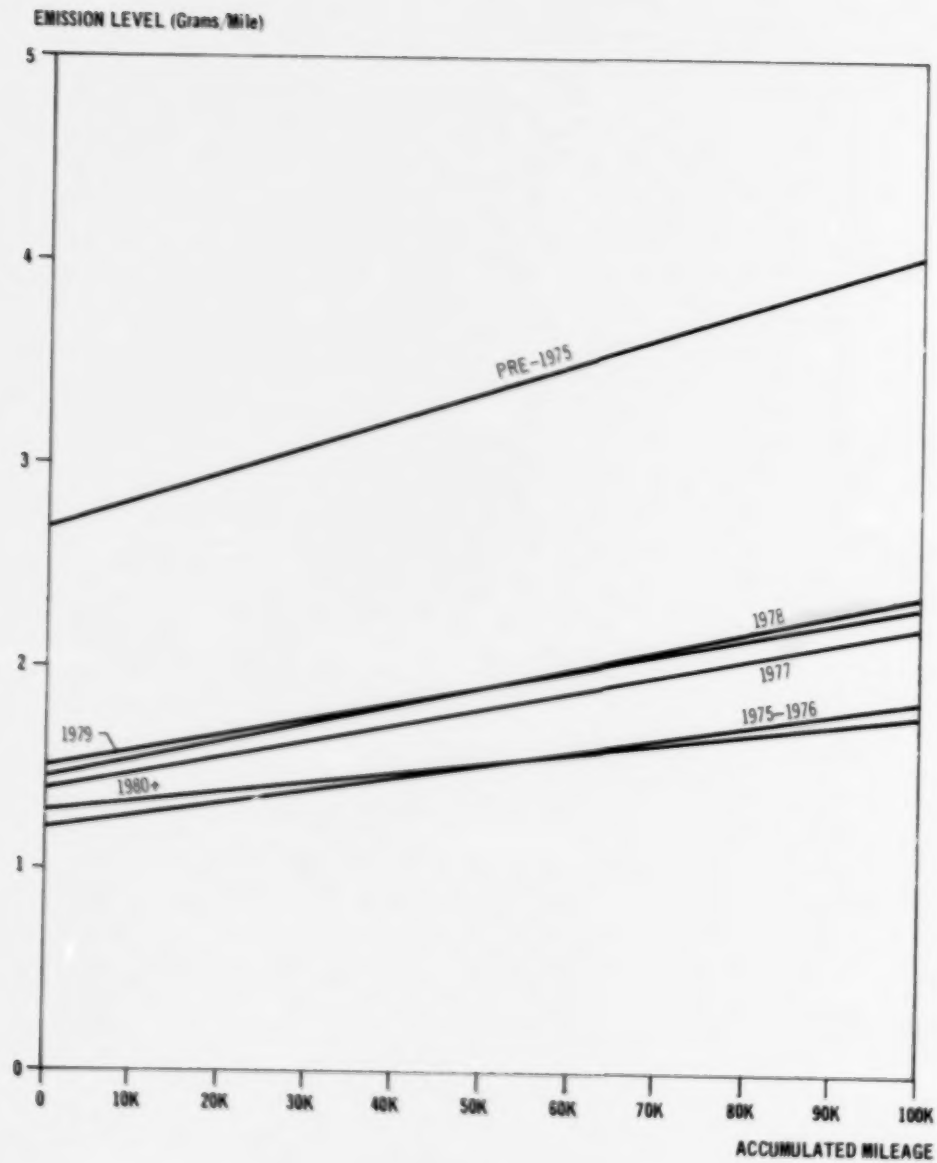
EXHAUST EMISSION RATES

FIGURE 13  
LIGHT DUTY DIESEL-POWERED VEHICLES  
HYDROCARBONS  
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

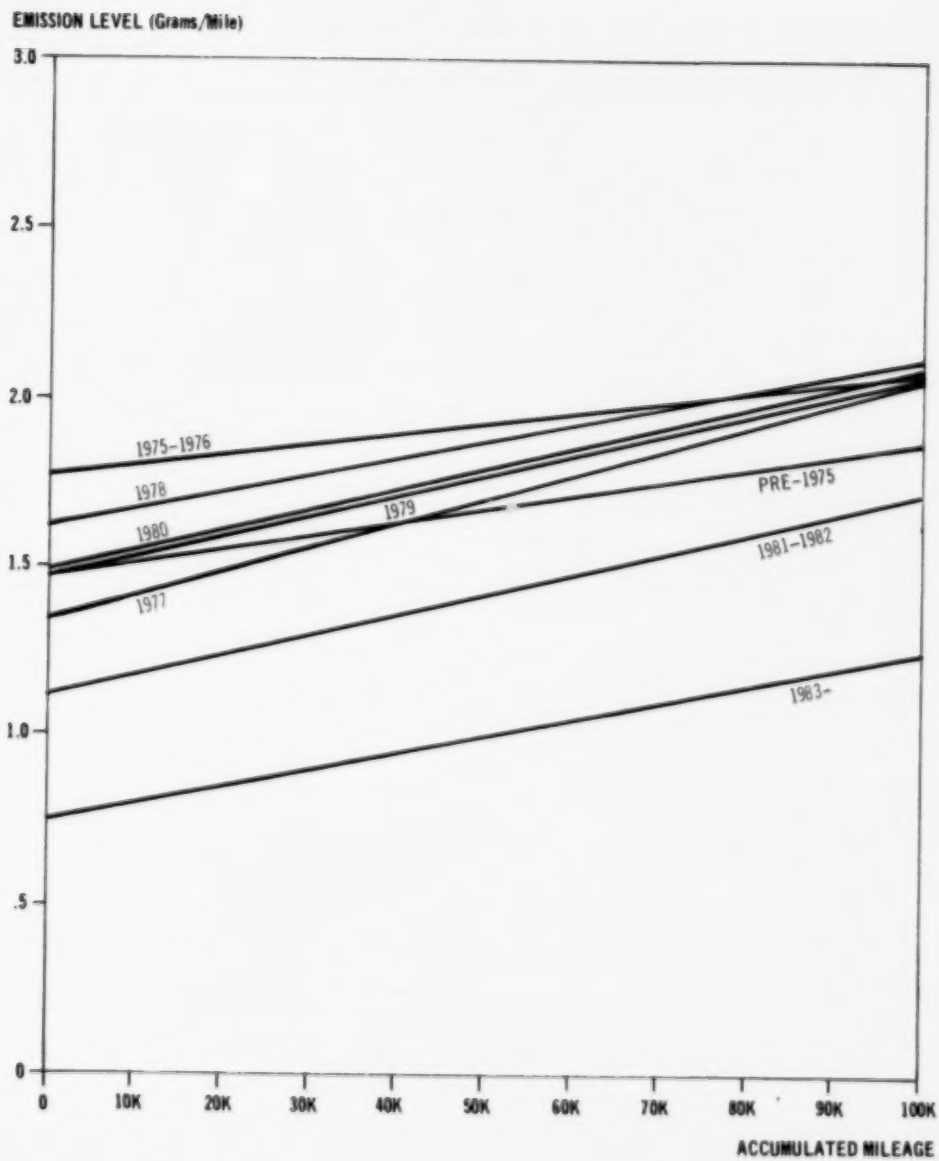
FIGURE 14  
LIGHT DUTY DIESEL-POWERED VEHICLES  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE





EXHAUST EMISSION RATES

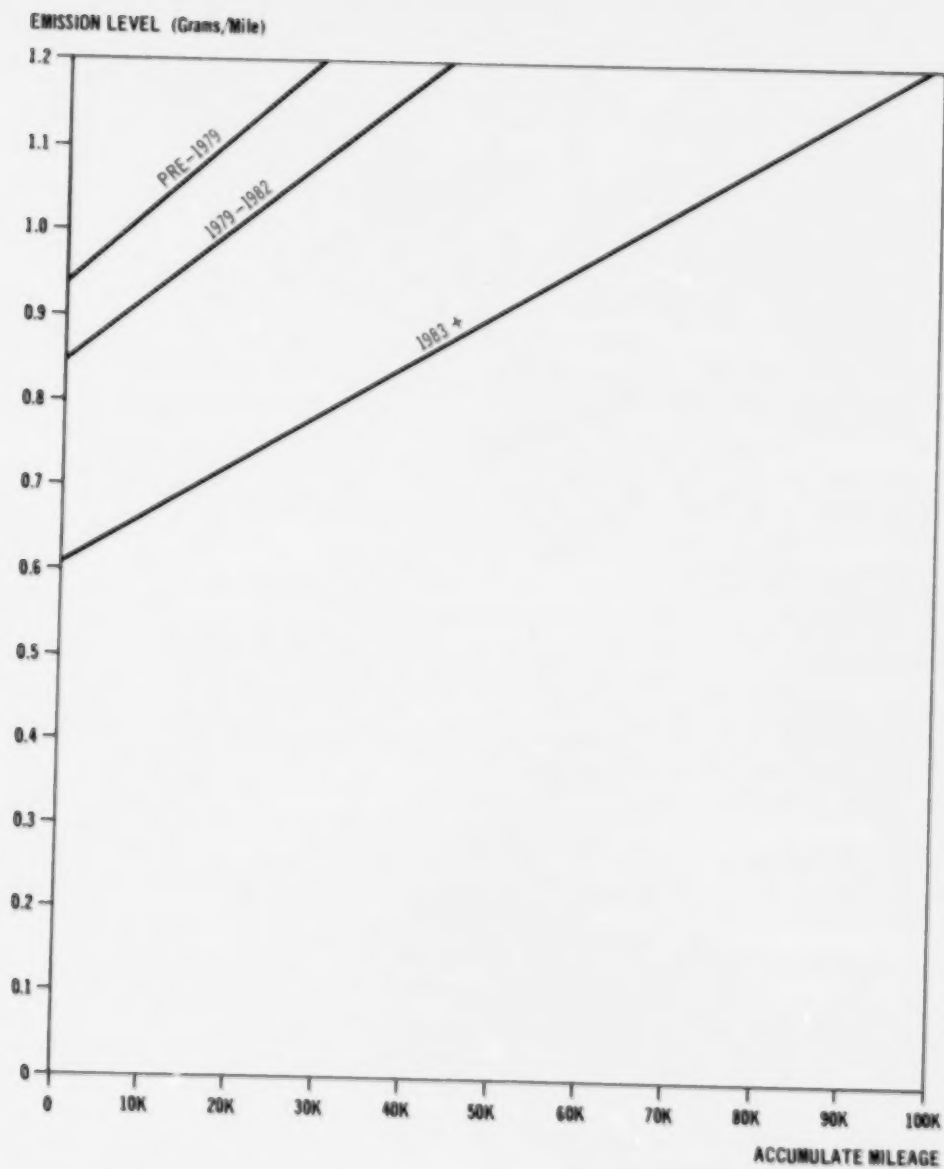
FIGURE 15  
LIGHT DUTY DIESEL-POWERED VEHICLES  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

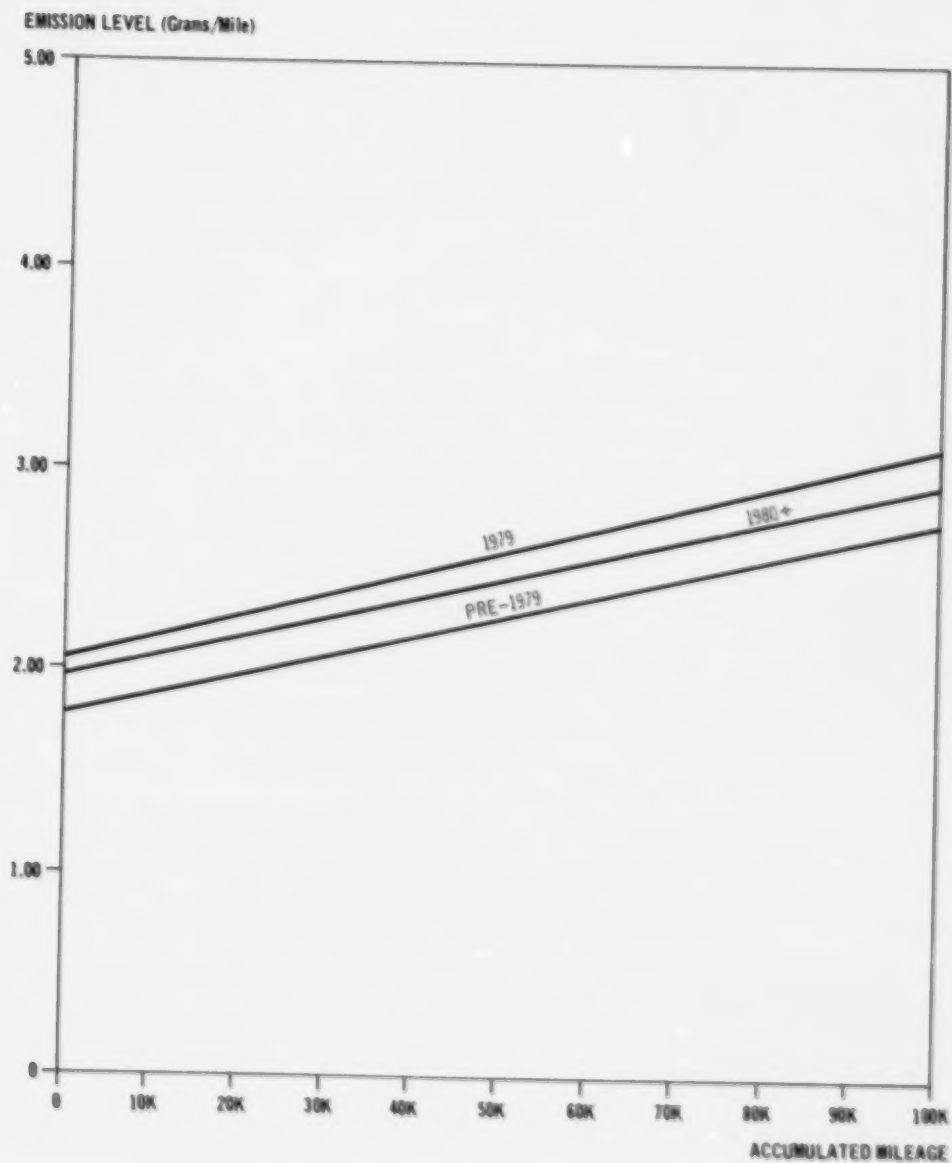
FIGURE 16  
LIGHT DUTY DIESEL-POWERED TRUCKS  
HYDROCARBONS

LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

FIGURE 17  
LIGHT DUTY DIESEL-POWERED TRUCKS  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE

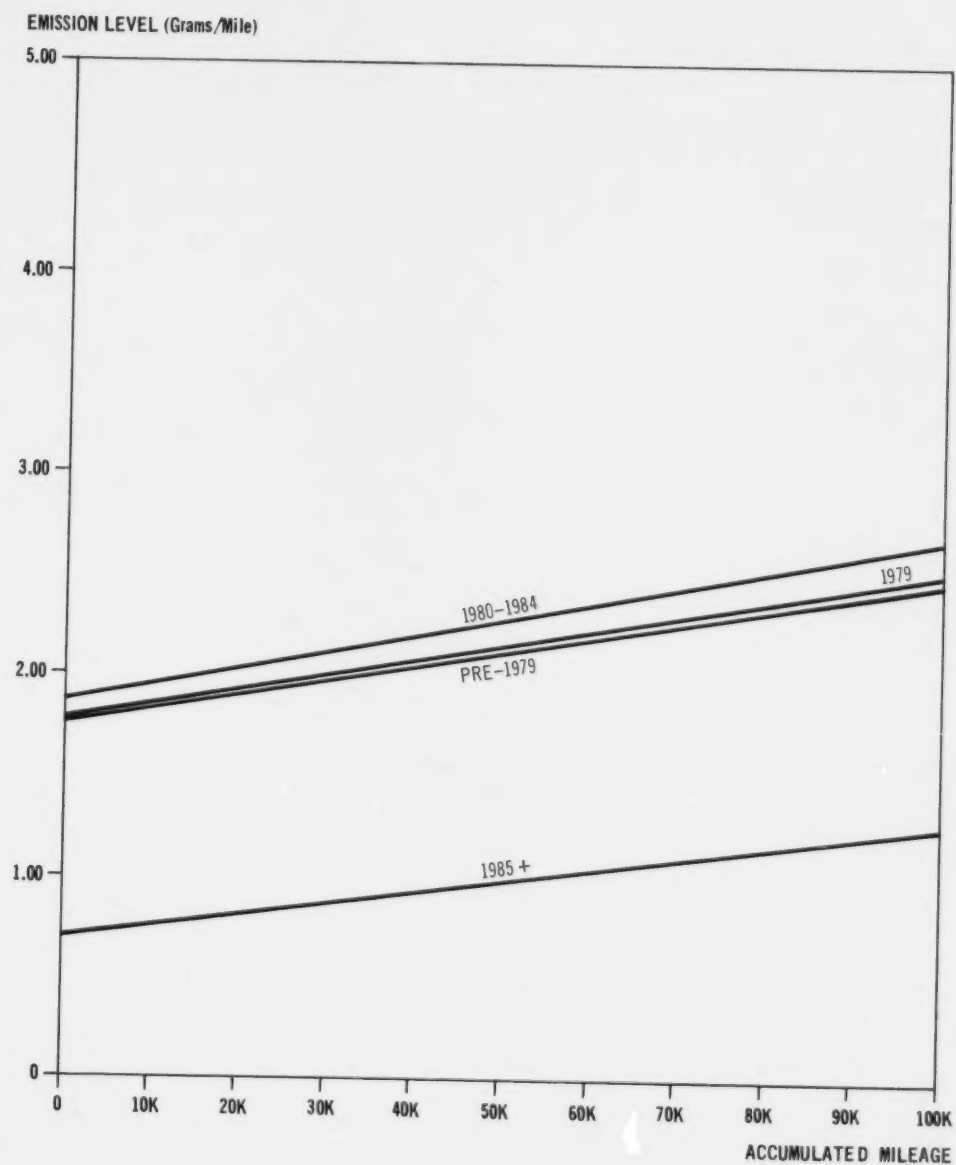


EXHAUST EMISSION RATES

FIGURE 18

LIGHT DUTY DIESEL-POWERED TRUCKS  
OXIDES OF NITROGEN

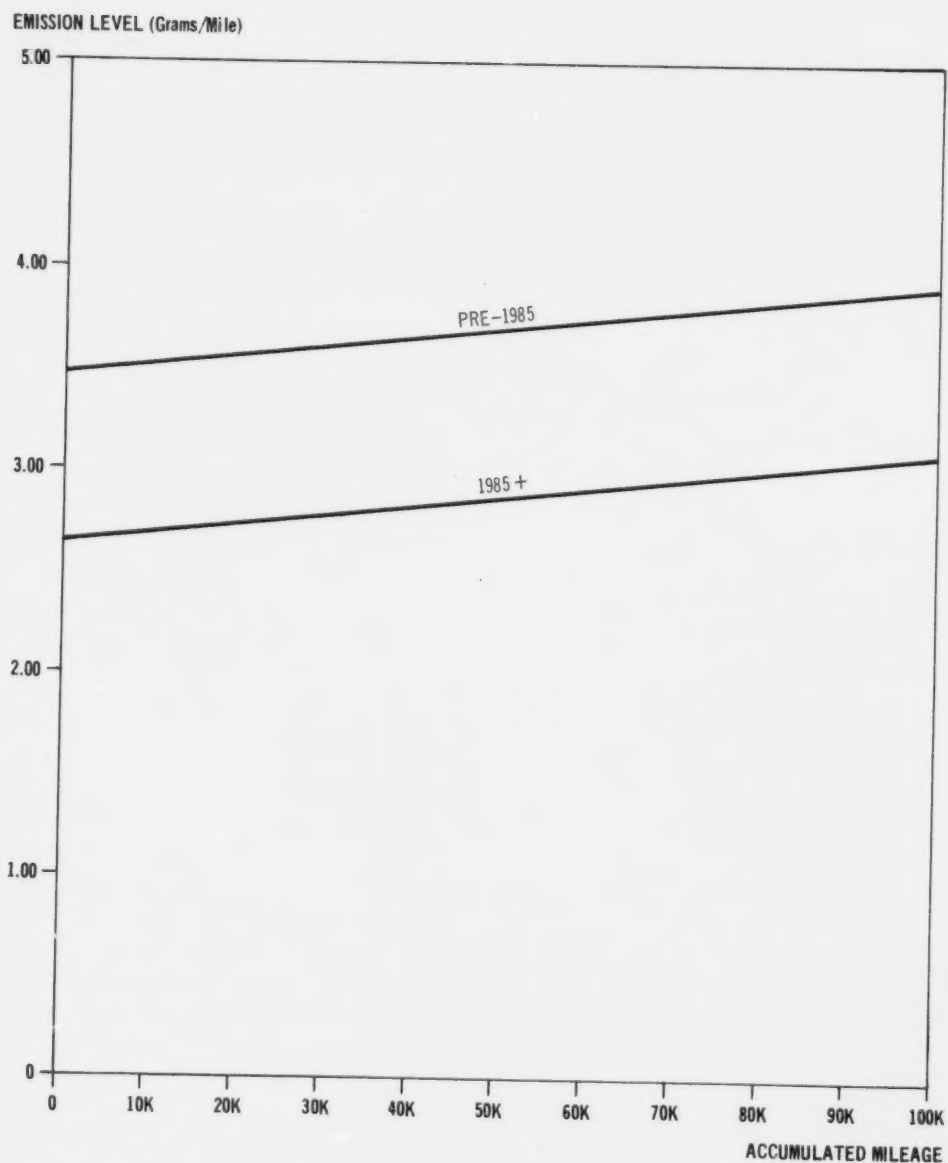
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

FIGURE 19  
HEAVY DUTY DIESEL-POWERED VEHICLES  
HYDROCARBONS

LOW ALTITUDE 49-STATE

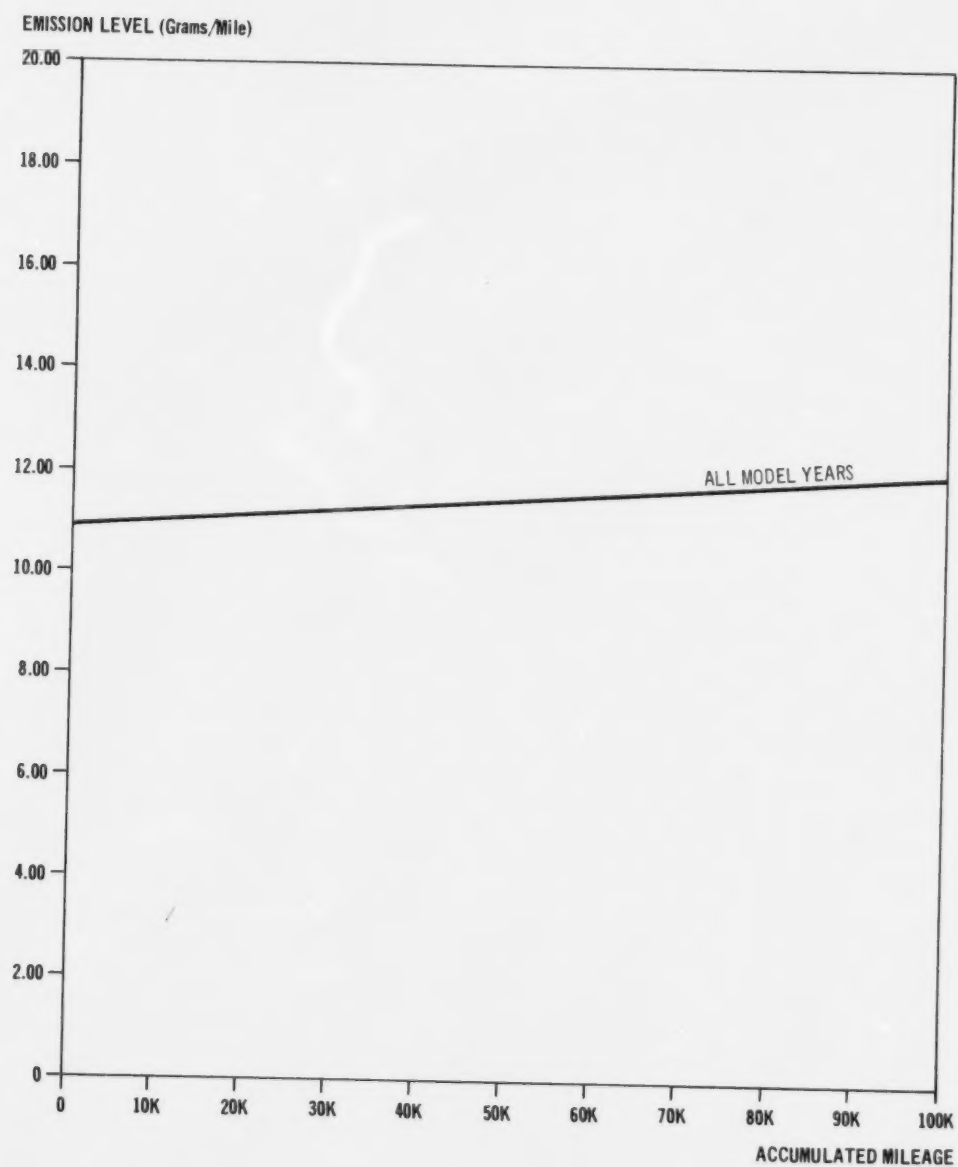


EXHAUST EMISSION RATES

FIGURE 20

HEAVY DUTY DIESEL-POWERED VEHICLES  
CARBON MONOXIDE

LOW ALTITUDE 49-STATE

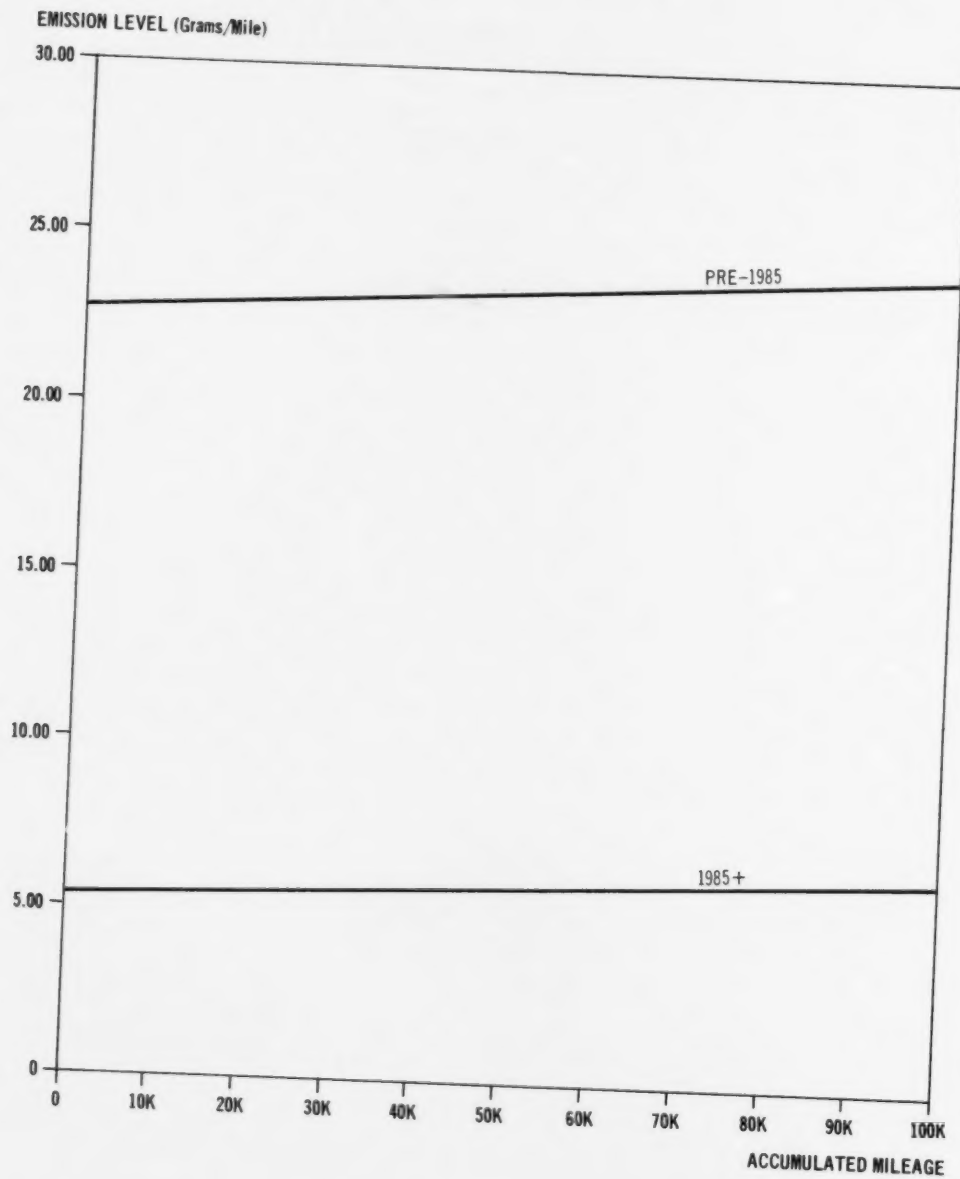


EXHAUST EMISSION RATES

FIGURE 21

HEAVY DUTY DIESEL POWERED VEHICLES  
OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE



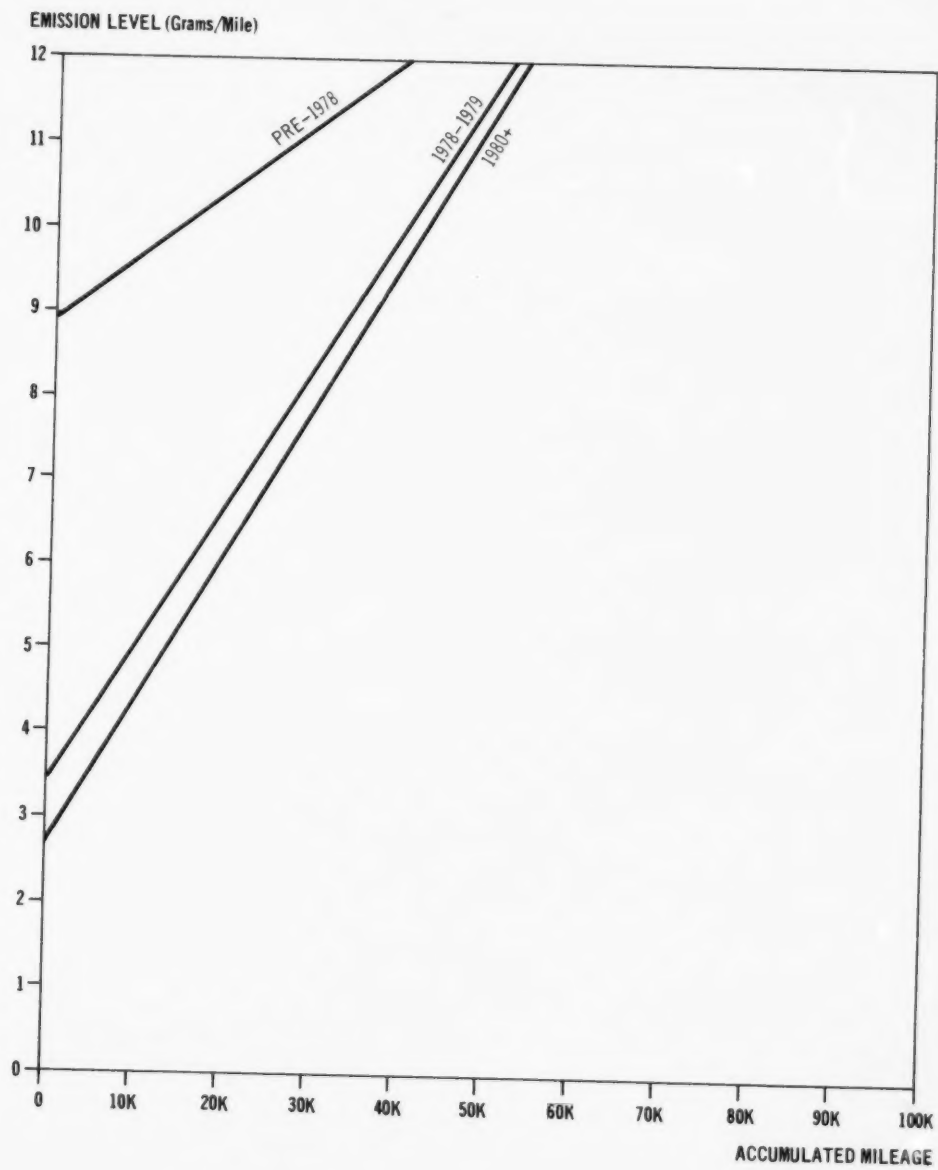


EXHAUST EMISSION RATES

FIGURE 22

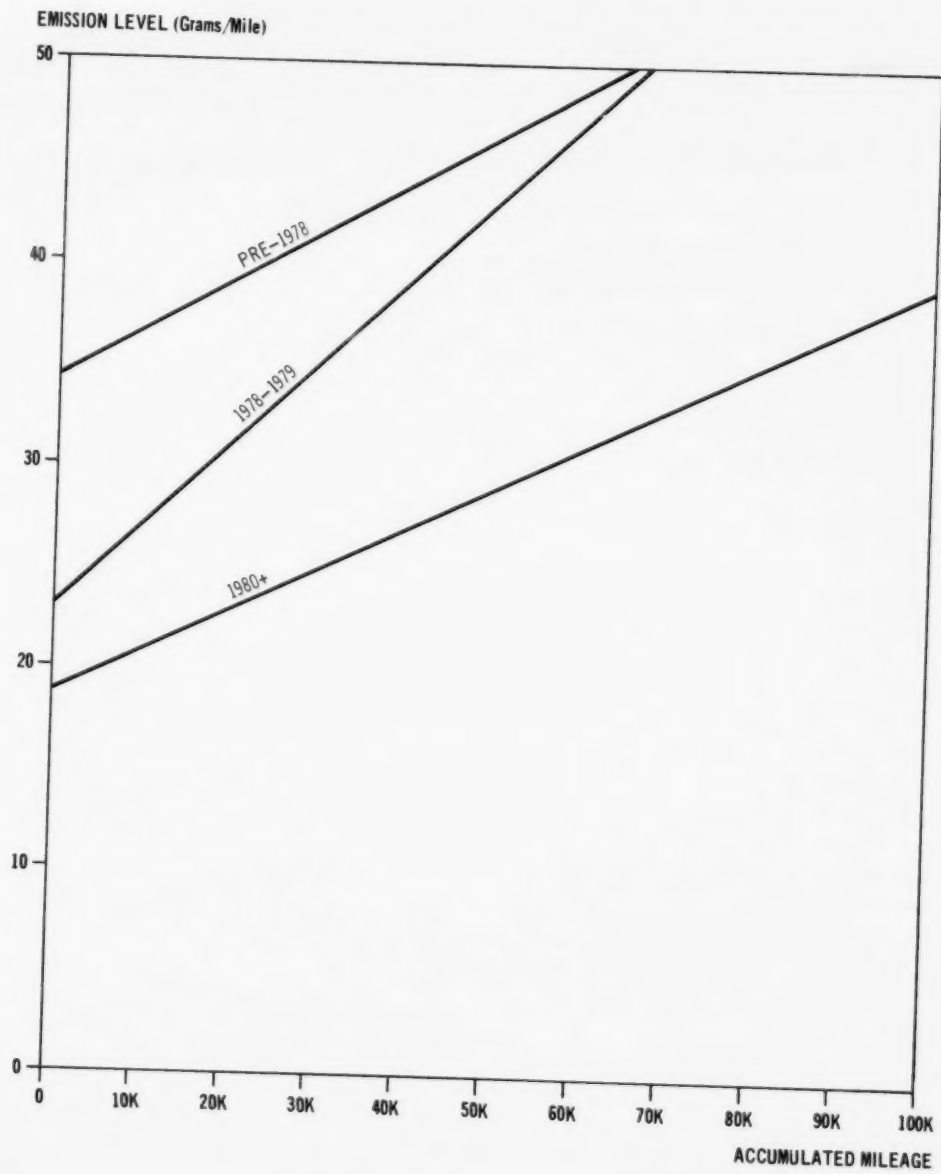
MOTORCYCLES  
HYDROCARBONS

LOW ALTITUDE 49-STATE



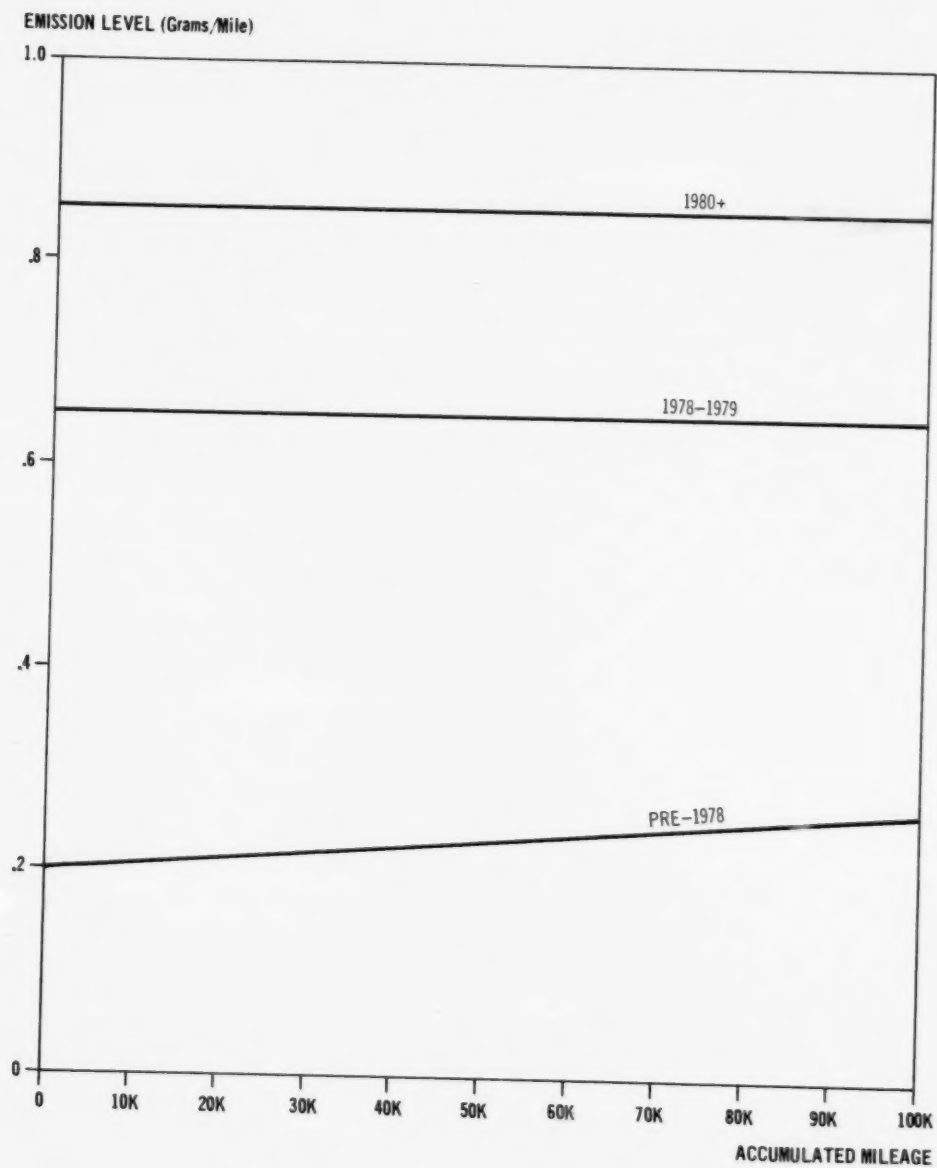
EXHAUST EMISSION RATES

FIGURE 23  
**MOTORCYCLES**  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



EXHAUST EMISSION RATES

FIGURE 24  
**MOTORCYCLES**  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE

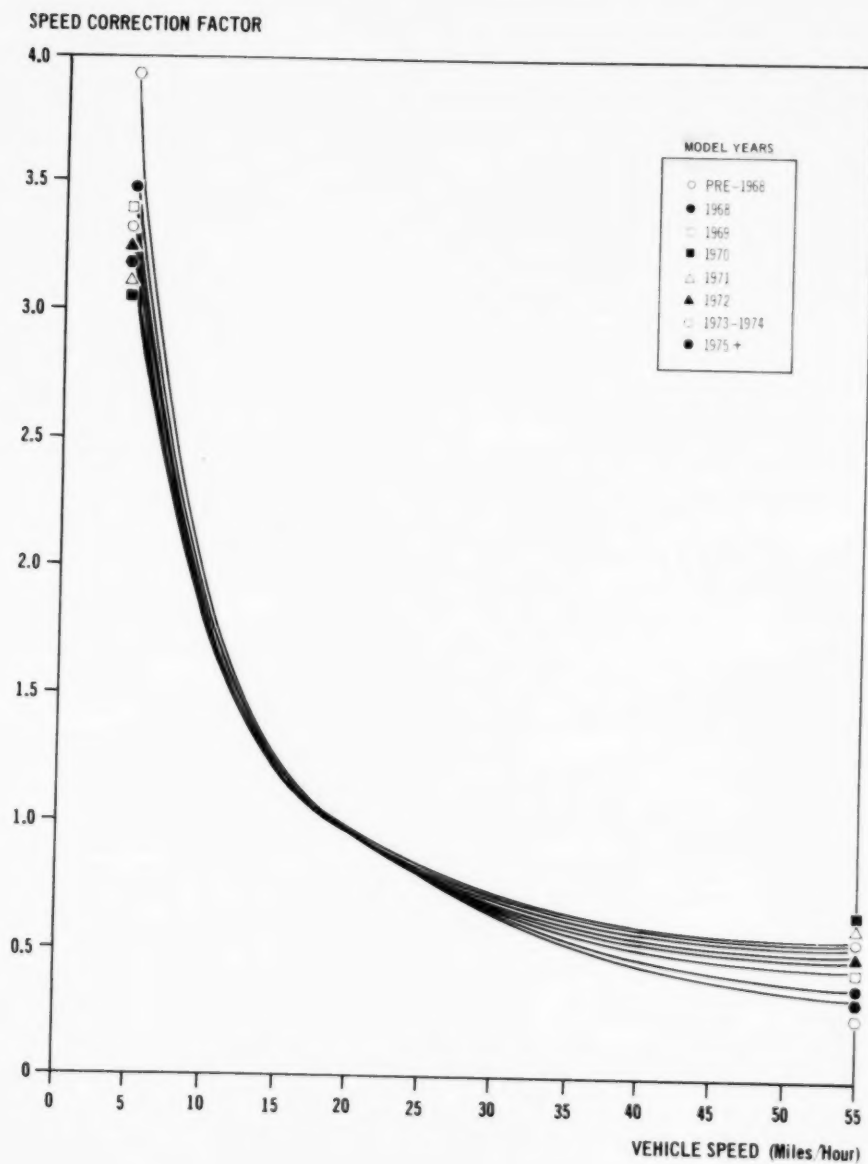


SPEED CORRECTION FACTORS

FIGURE 25

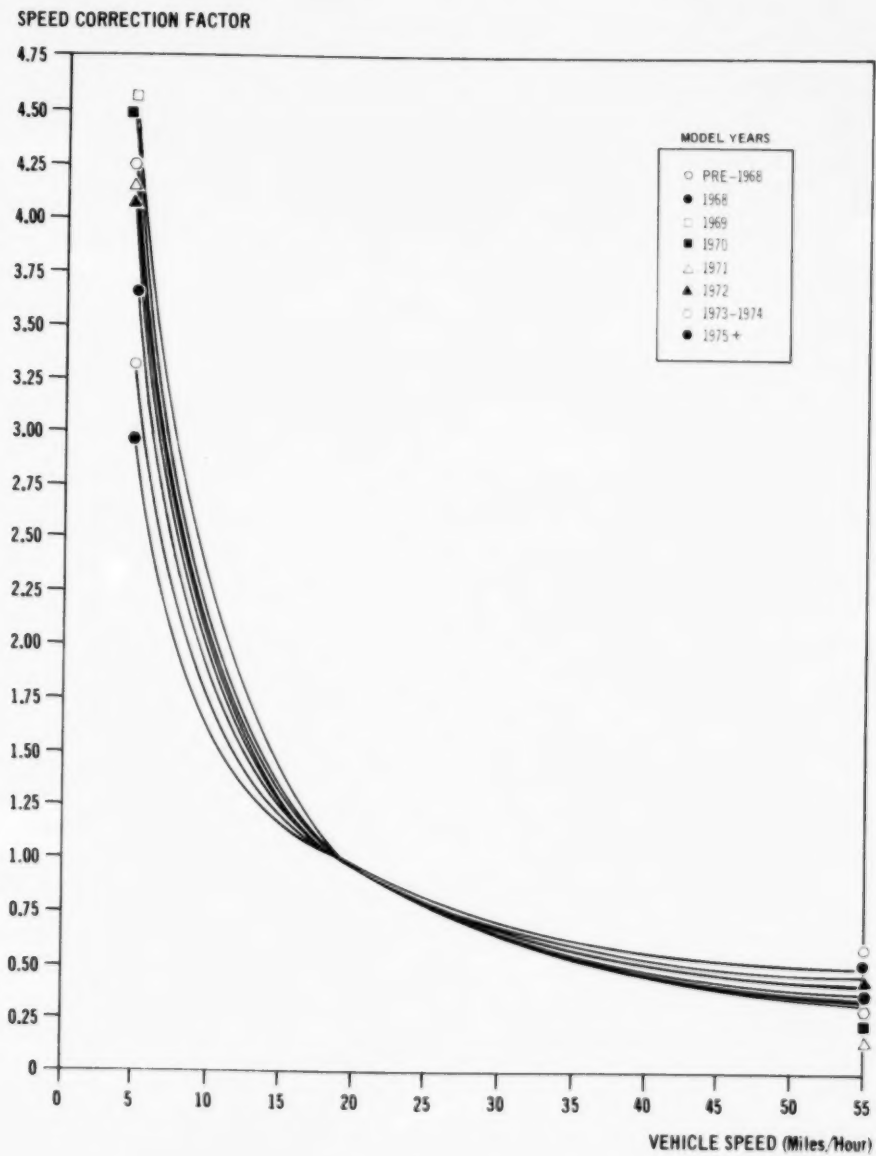
**LIGHT DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS**

LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

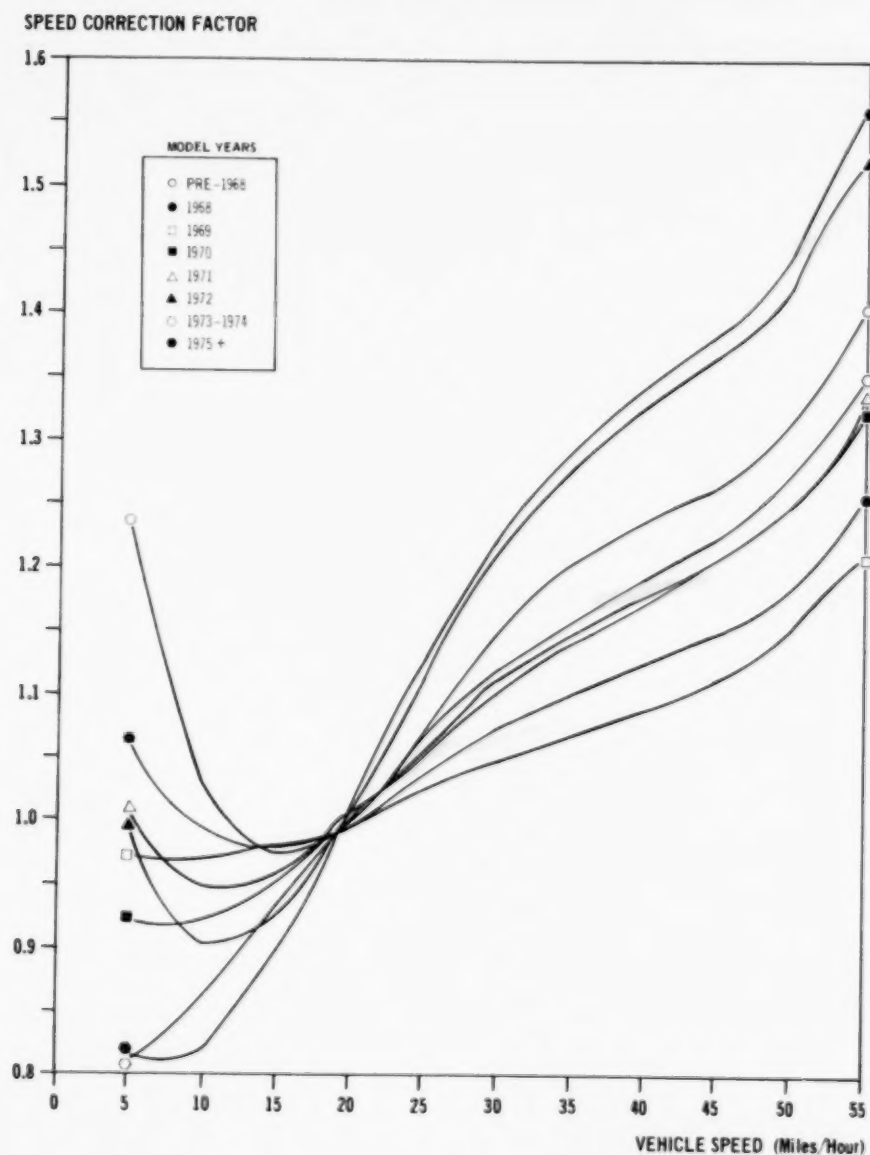
FIGURE 26  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

FIGURE 27  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN

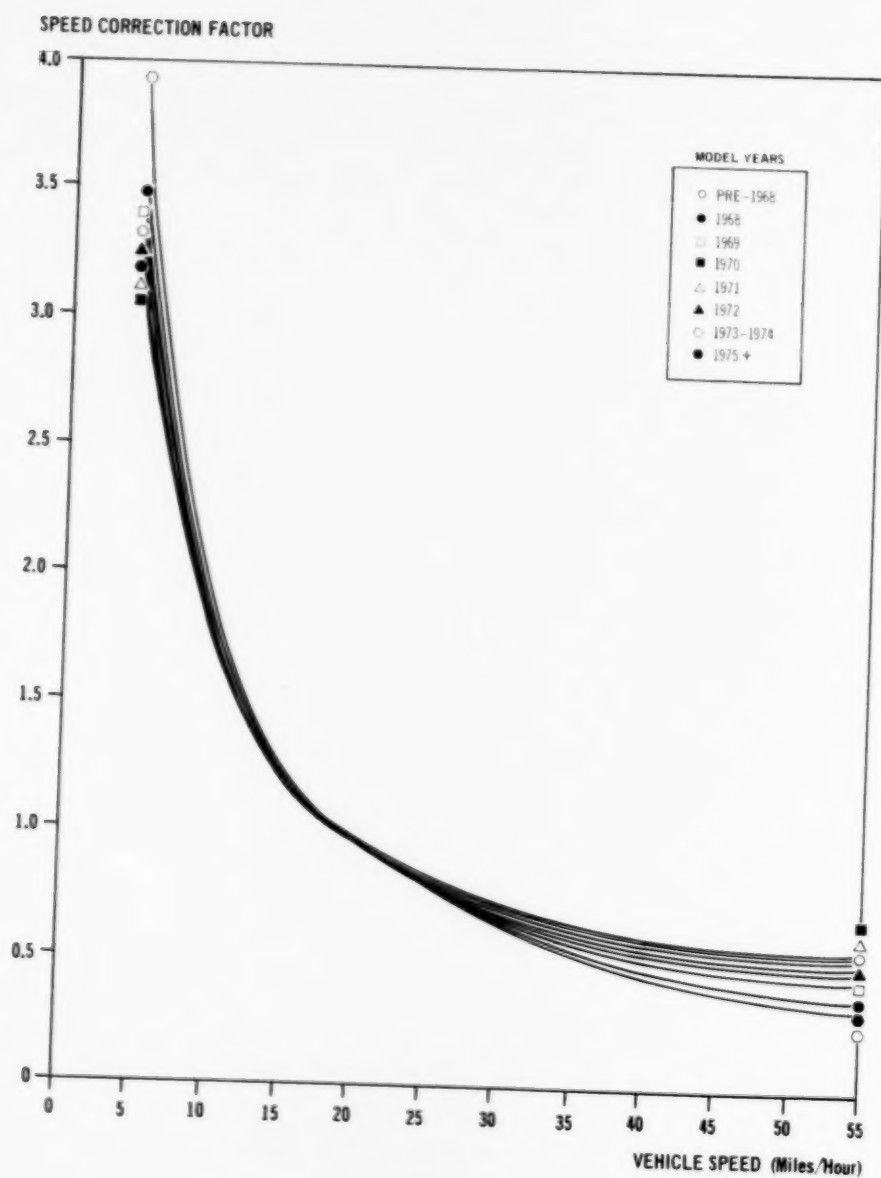
LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

FIGURE 28  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
HYDROCARBONS

LOW ALTITUDE 49-STATE

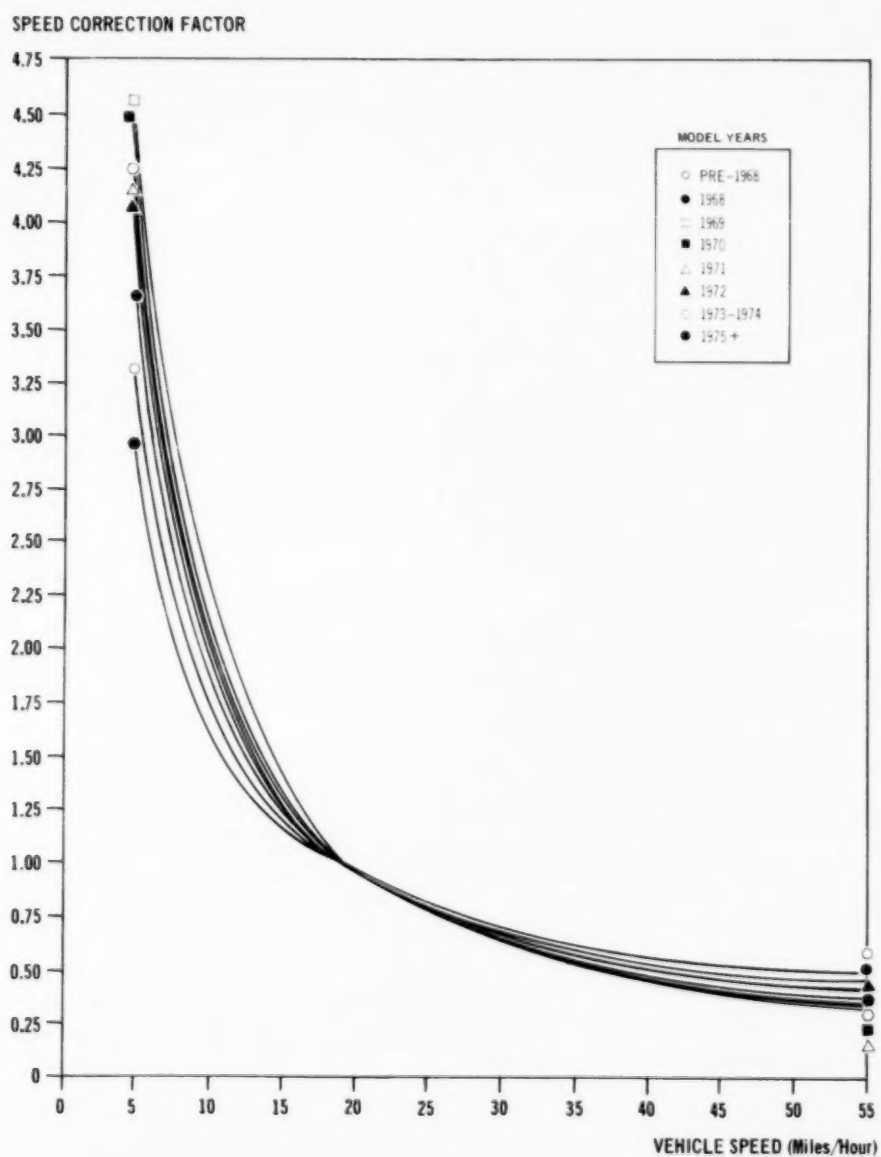




SPEED CORRECTION FACTORS

FIGURE 29  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
CARBON MONOXIDE

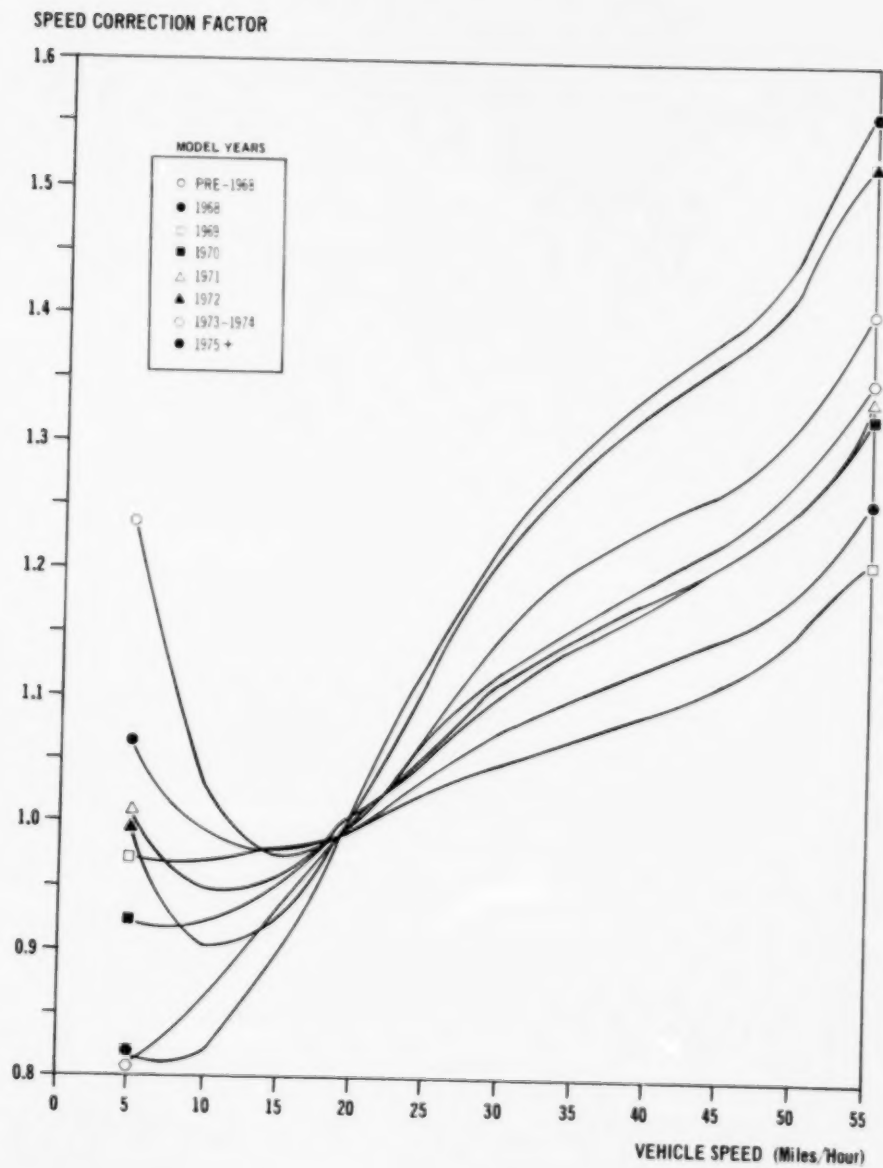
LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

FIGURE 30  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

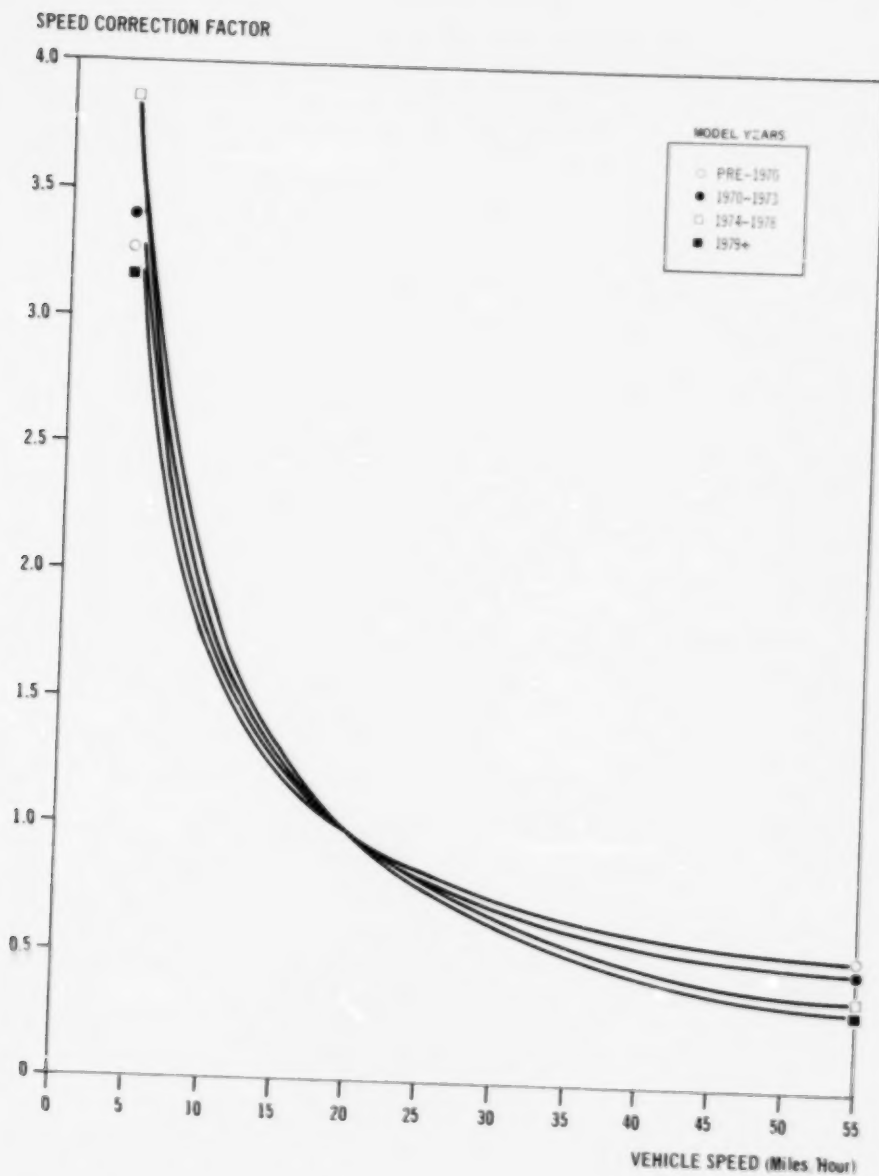


SPEED CORRECTION FACTORS

FIGURE 31

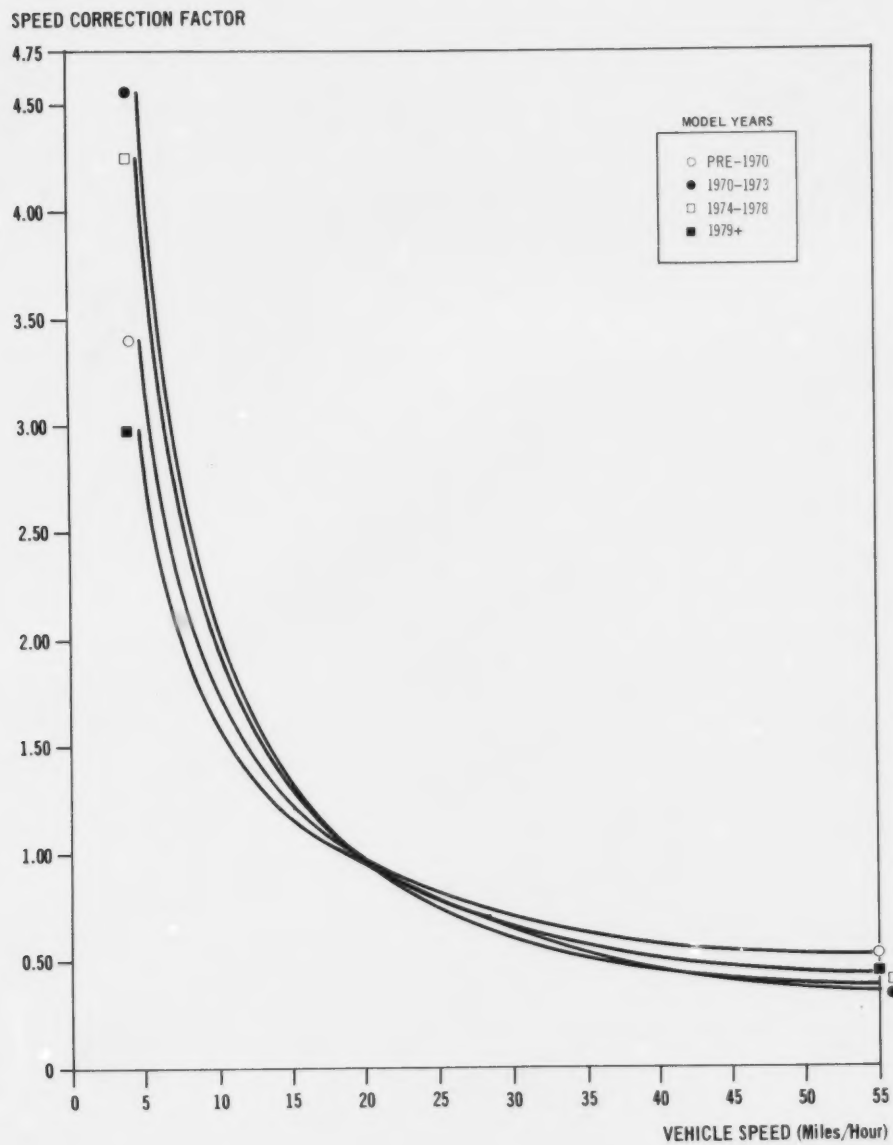
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
HYDROCARBONS

LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

FIGURE 32  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



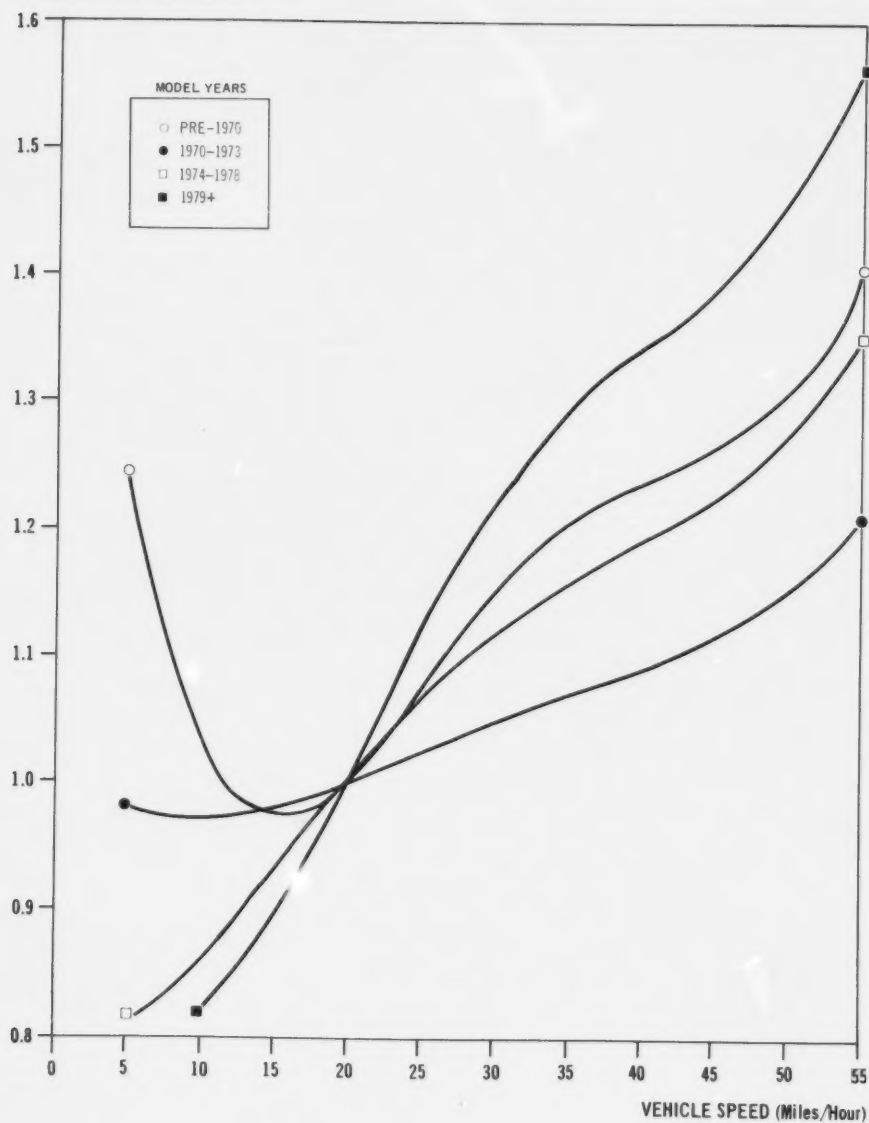
SPEED CORRECTION FACTORS

FIGURE 33

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
OXIDES OF NITROGEN

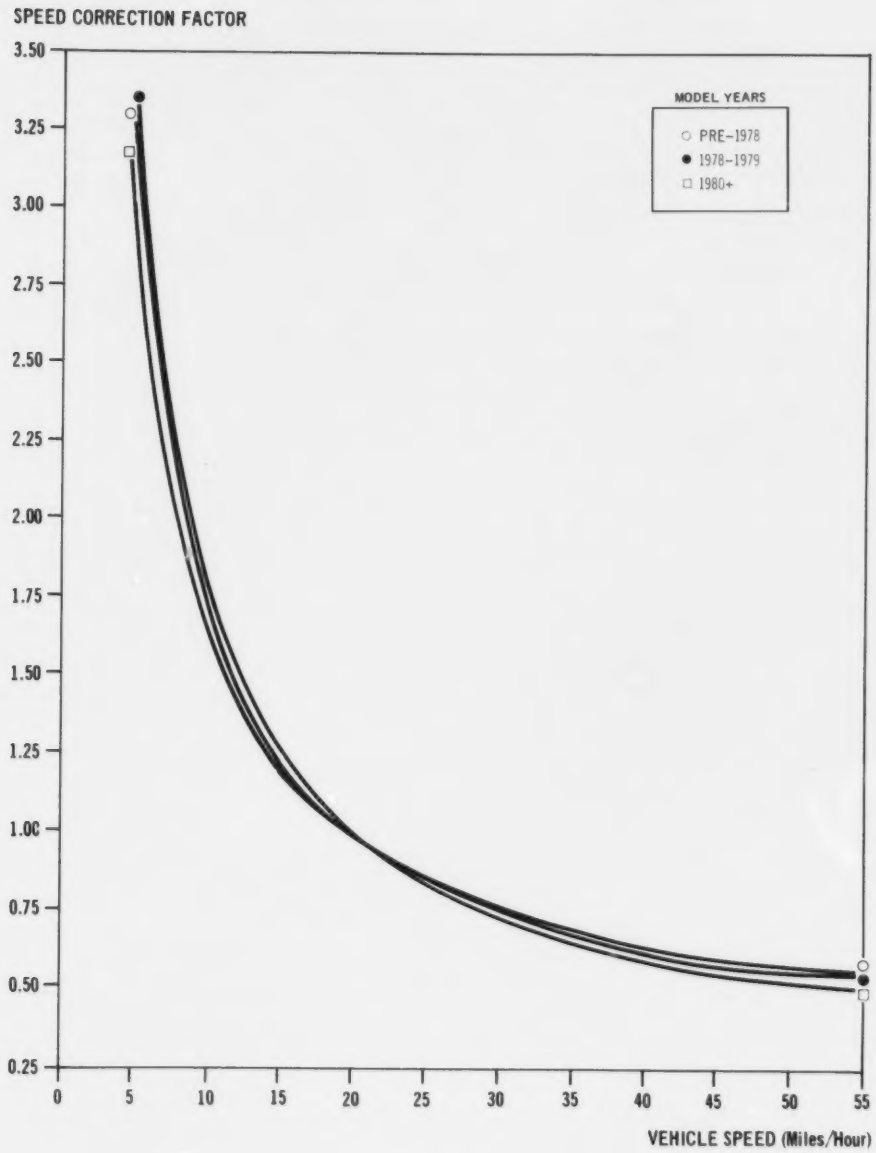
LOW ALTITUDE 49-STATE

SPEED CORRECTION FACTOR



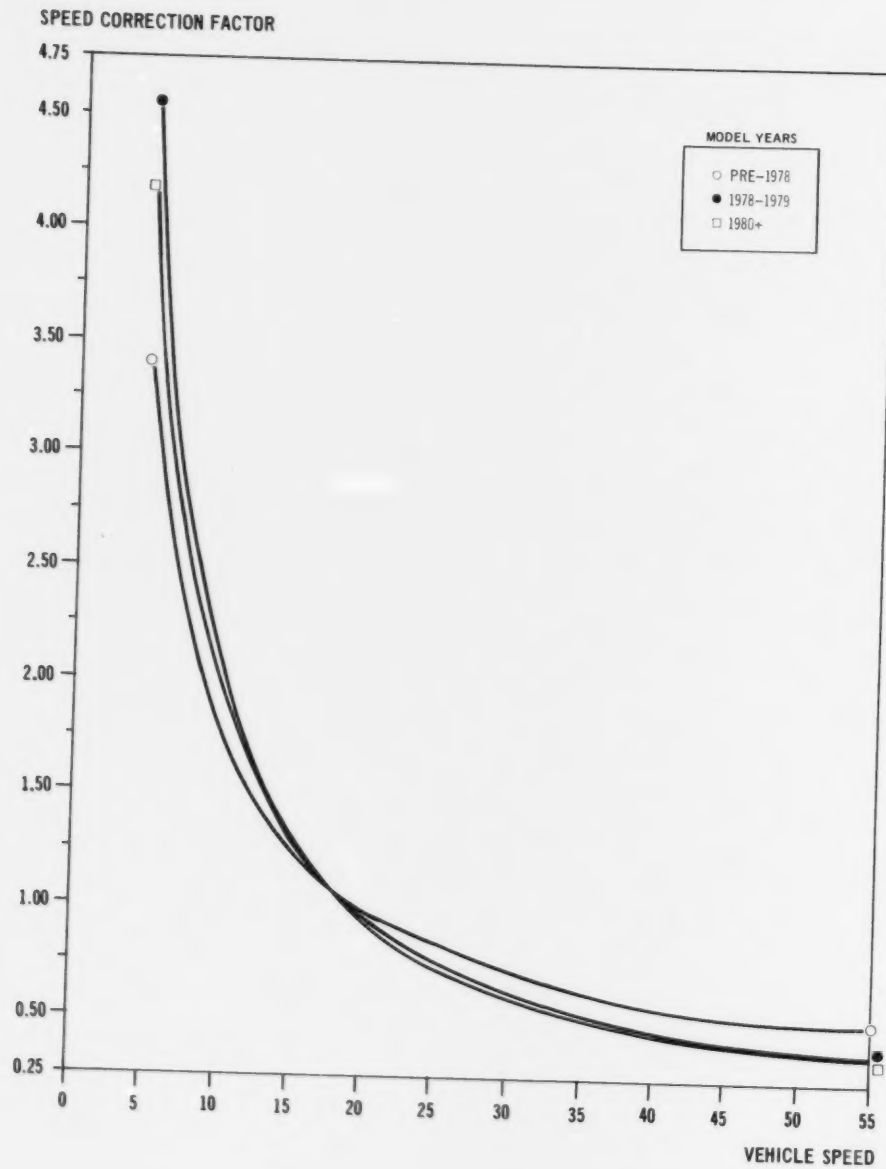
SPEED CORRECTION FACTORS

FIGURE 34  
**MOTORCYCLES**  
**HYDROCARBONS**  
LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

FIGURE 35  
**MOTORCYCLES**  
**CARBON MONOXIDE**  
LOW ALTITUDE 49-STATE

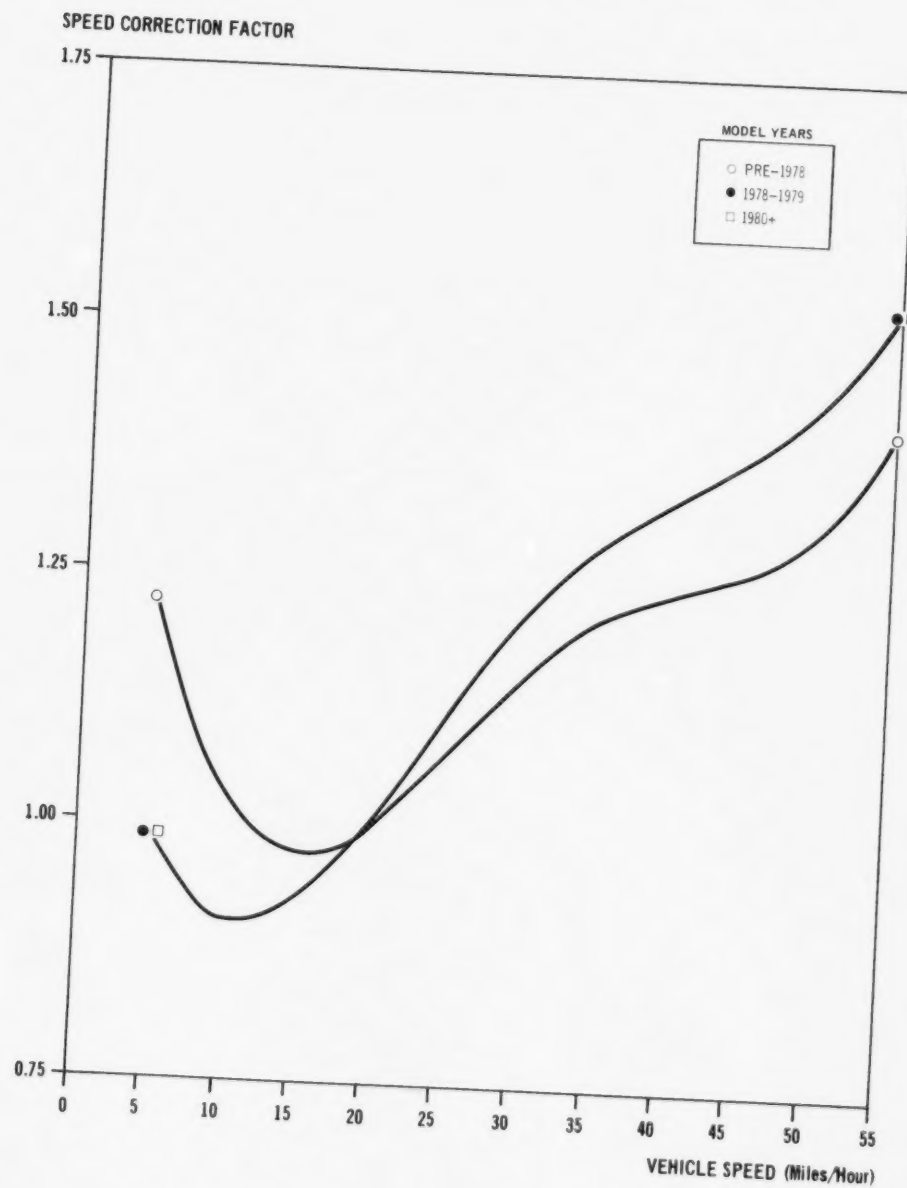


SPEED CORRECTION FACTORS

FIGURE 36

**MOTORCYCLES**  
OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

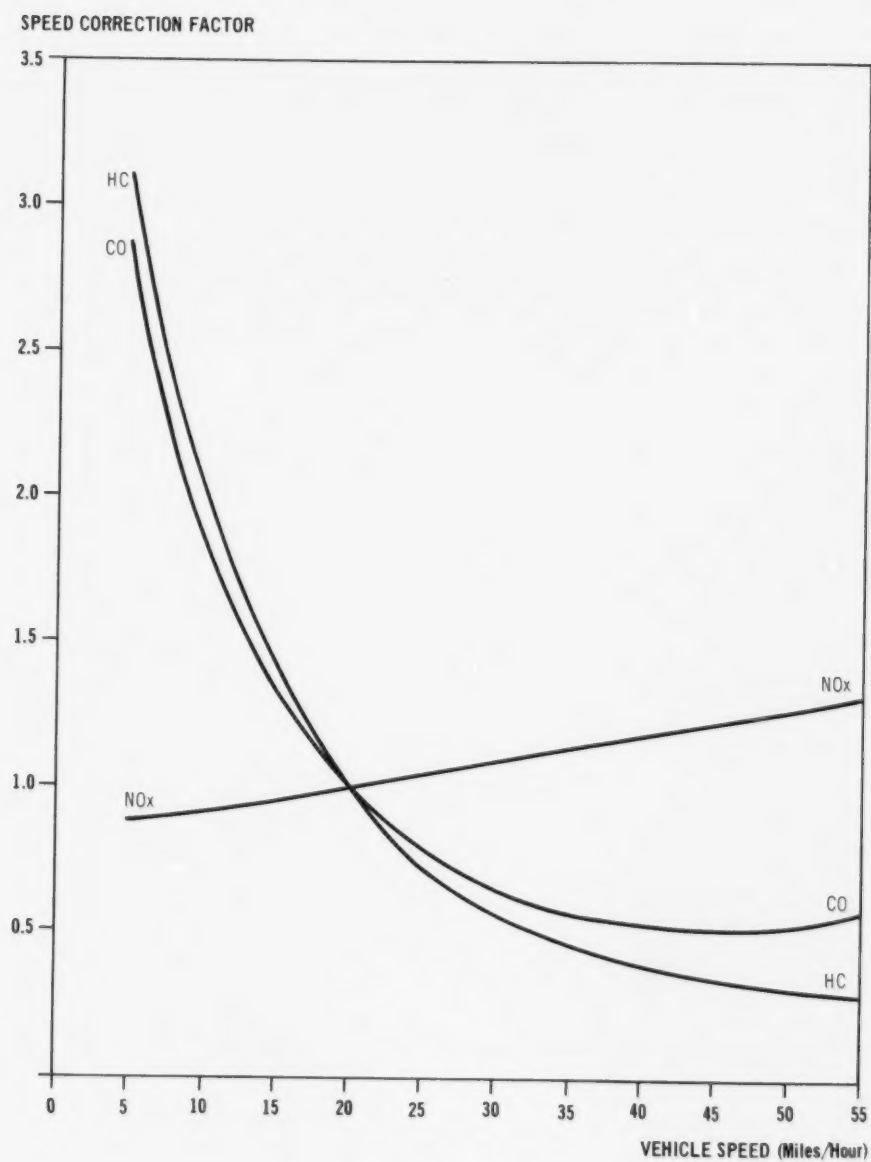




SPEED CORRECTION FACTORS

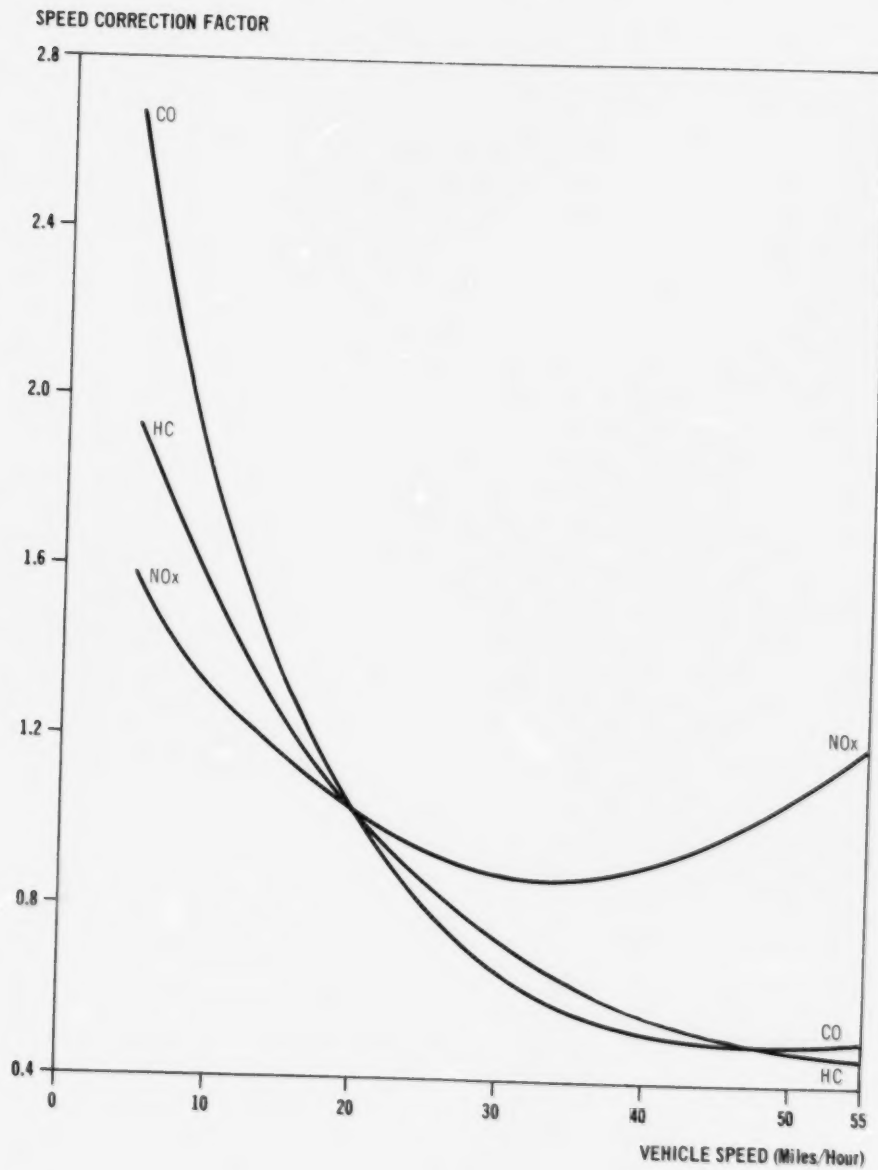
FIGURE 37  
HEAVY DUTY GASOLINE-POWERED VEHICLES  
ALL POLLUTANTS

LOW ALTITUDE 49-STATE



SPEED CORRECTION FACTORS

FIGURE 38  
HEAVY DUTY DIESEL-POWERED VEHICLES  
ALL POLLUTANTS  
LOW ALTITUDE 49-STATE



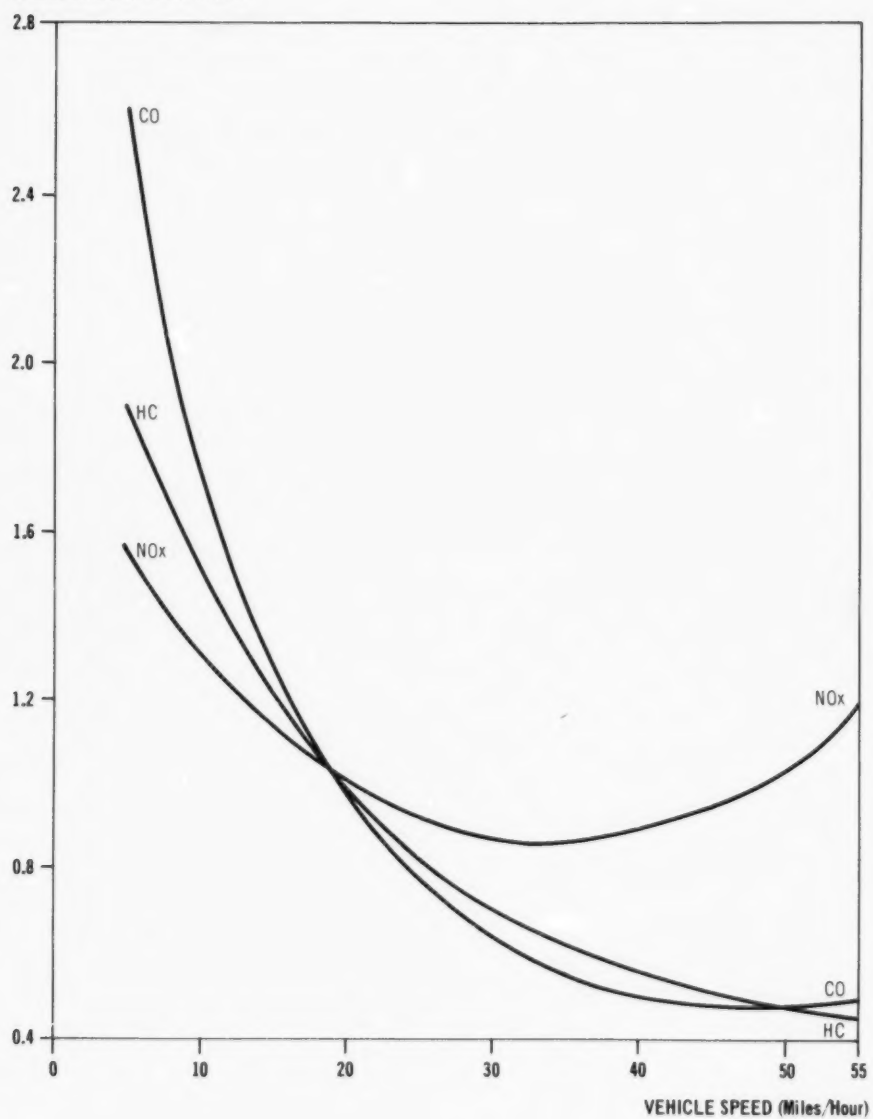
SPEED CORRECTION FACTORS

FIGURE 39

LIGHT DUTY DIESEL-POWERED VEHICLES AND TRUCKS  
ALL POLLUTANTS

LOW ALTITUDE 49-STATE

SPEED CORRECTION FACTOR



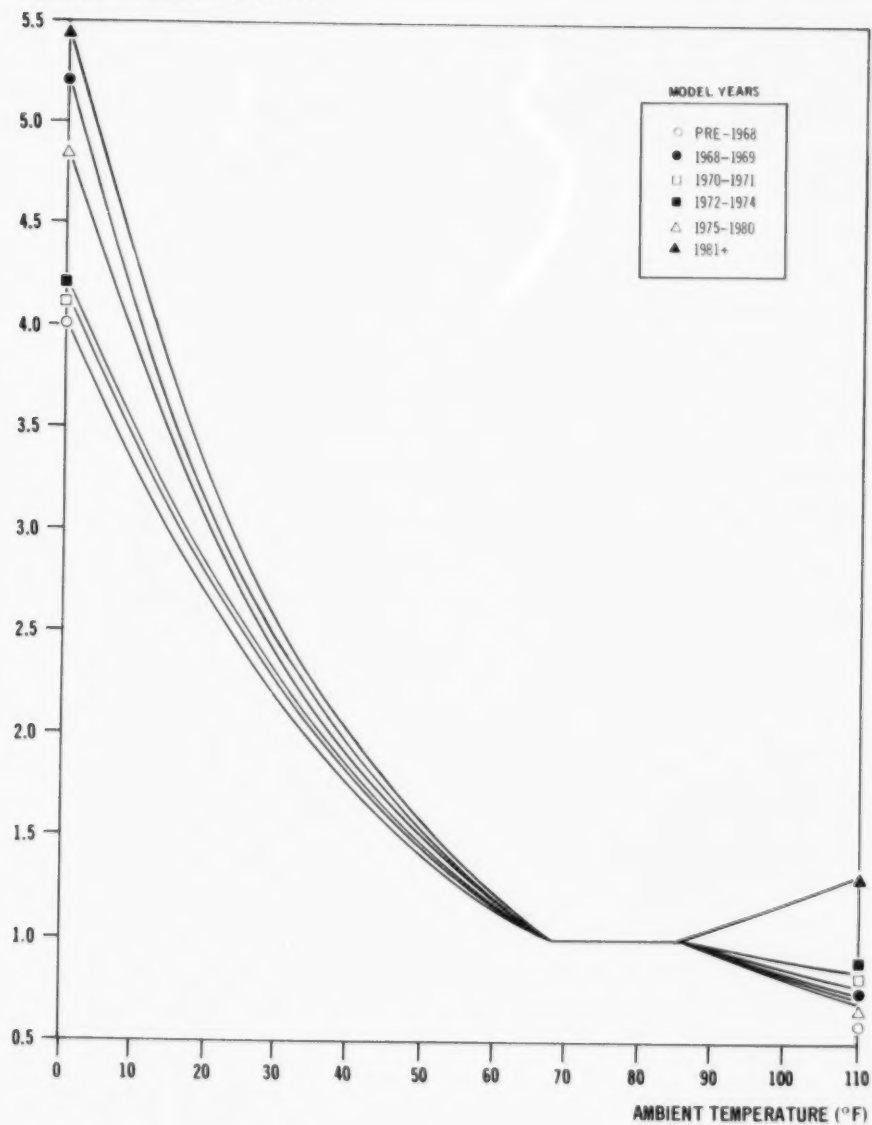
TEMPERATURE CORRECTION FACTORS

FIGURE 40

LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 1 - HYDROCARBONS

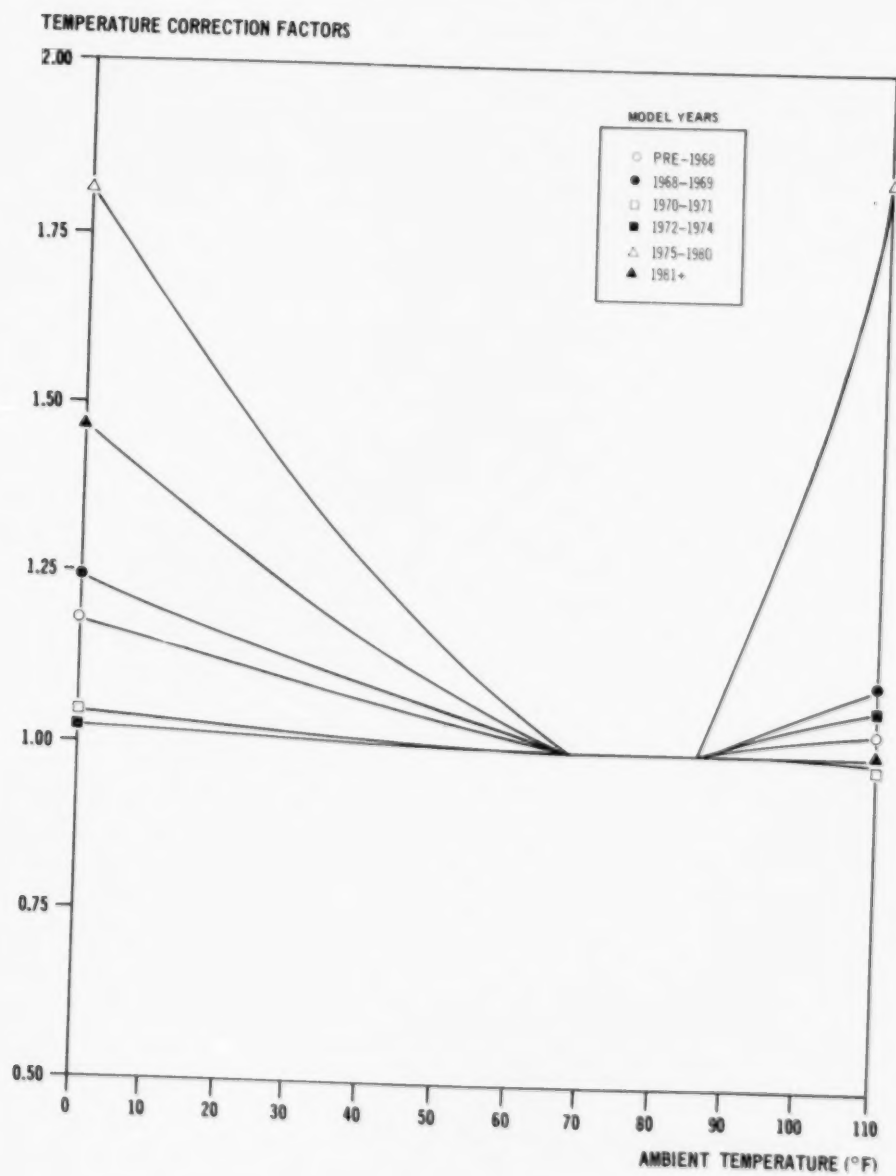
LOW ALTITUDE 49-STATE

TEMPERATURE CORRECTION FACTORS



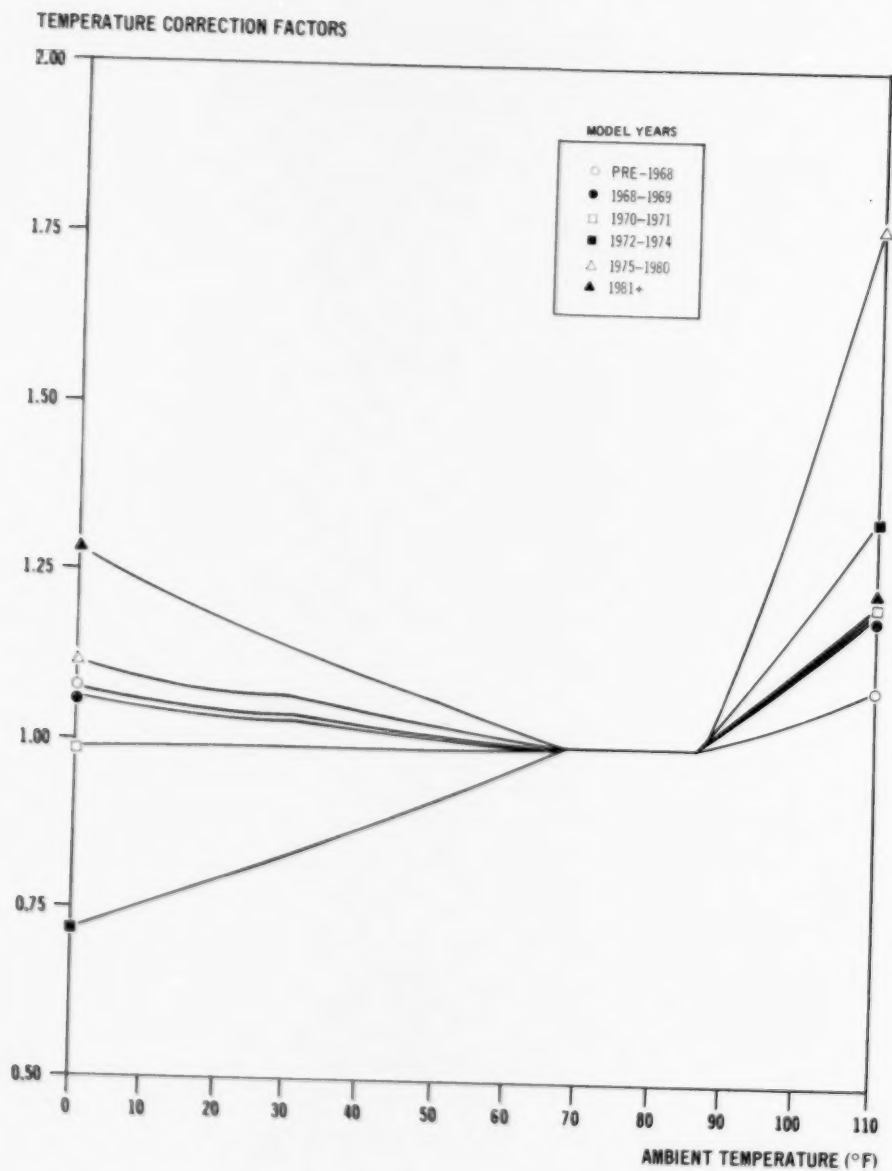
TEMPERATURE CORRECTION FACTORS

FIGURE 41  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 2 - HYDROCARBONS  
LOW ALTITUDE 49-STATE



# TEMPERATURE CORRECTION FACTORS

FIGURE 42  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 3 - HYDROCARBONS  
LOW ALTITUDE 49-STATE



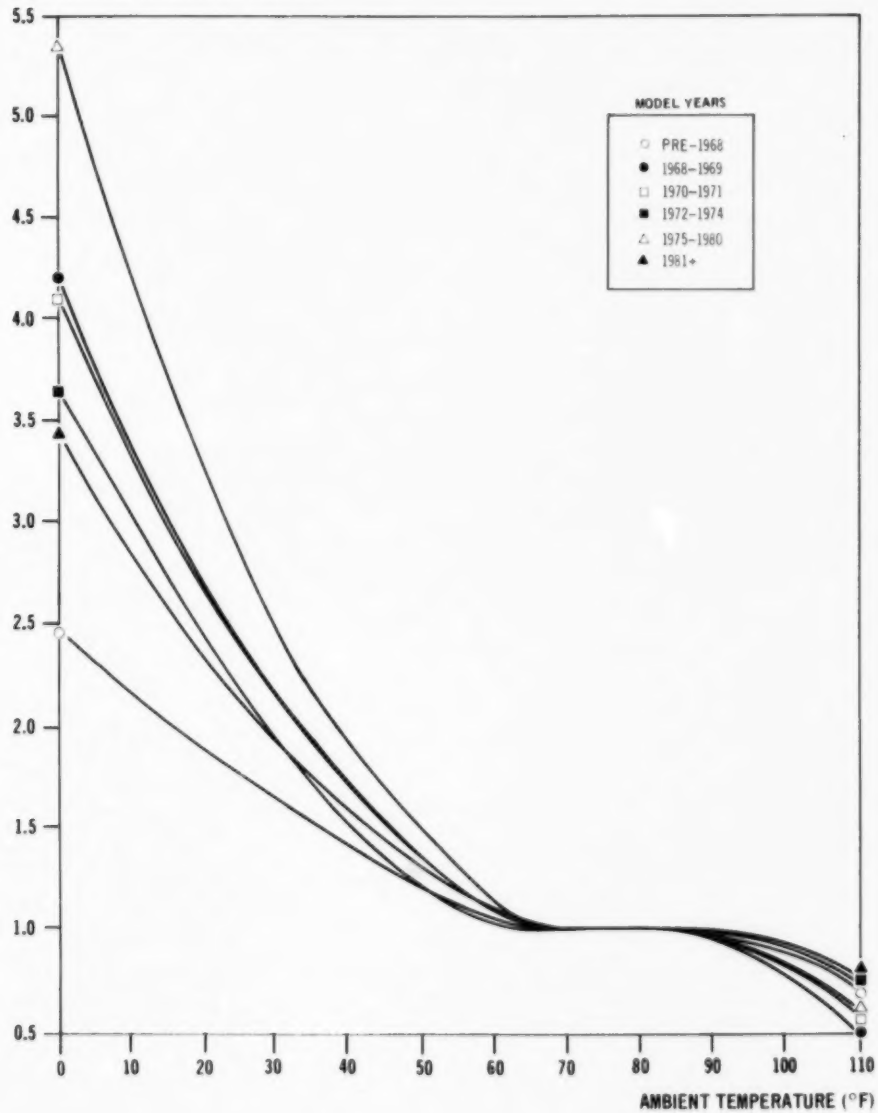
TEMPERATURE CORRECTION FACTORS

FIGURE 43

LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 1 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

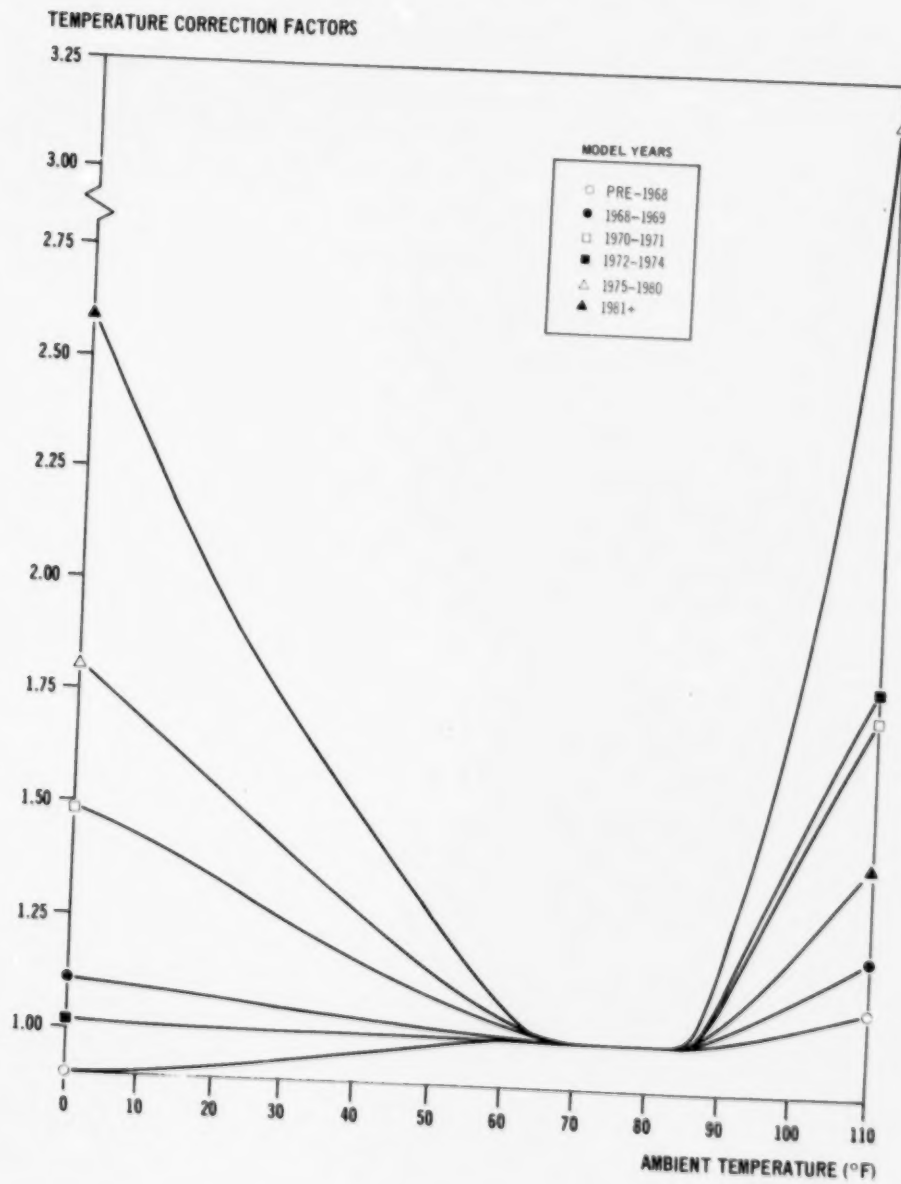
TEMPERATURE CORRECTION FACTORS



TEMPERATURE CORRECTION FACTORS

FIGURE 44  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 2 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

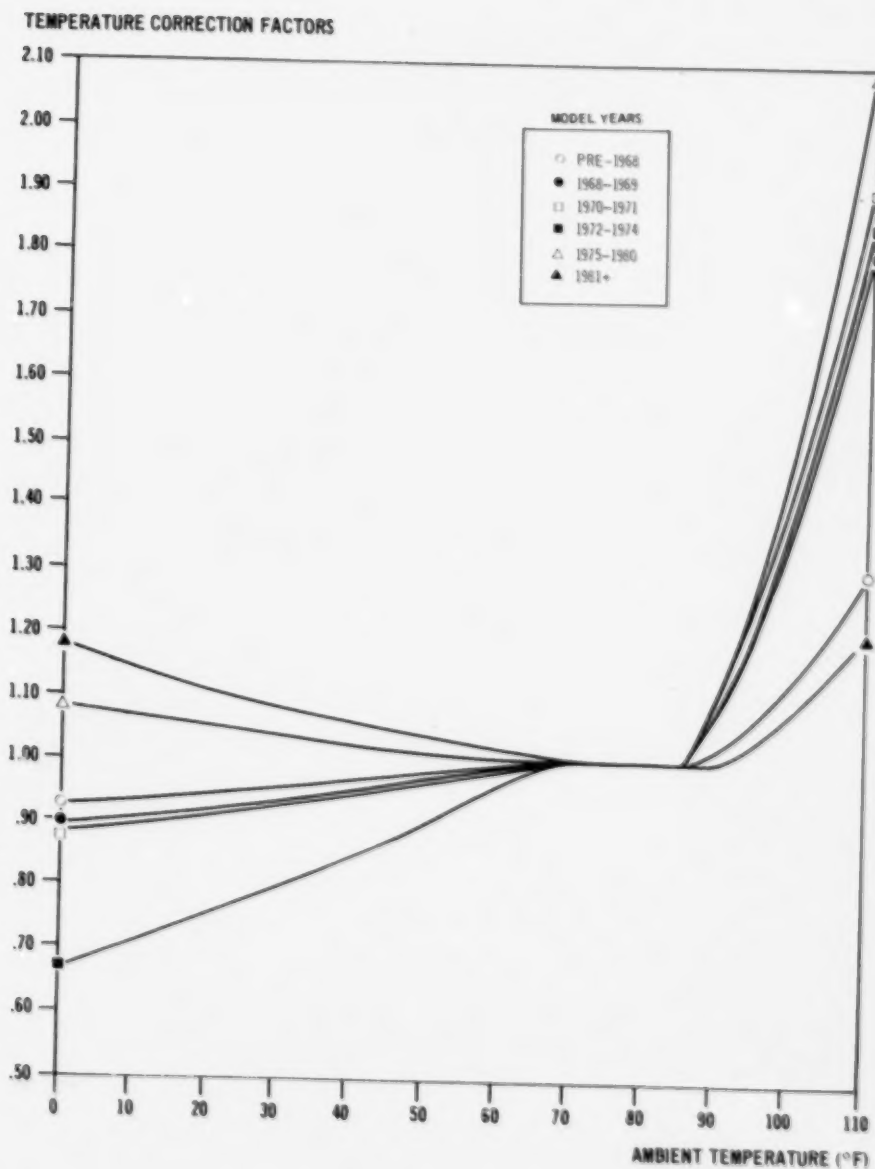




# TEMPERATURE CORRECTION FACTORS

FIGURE 45  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 3 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

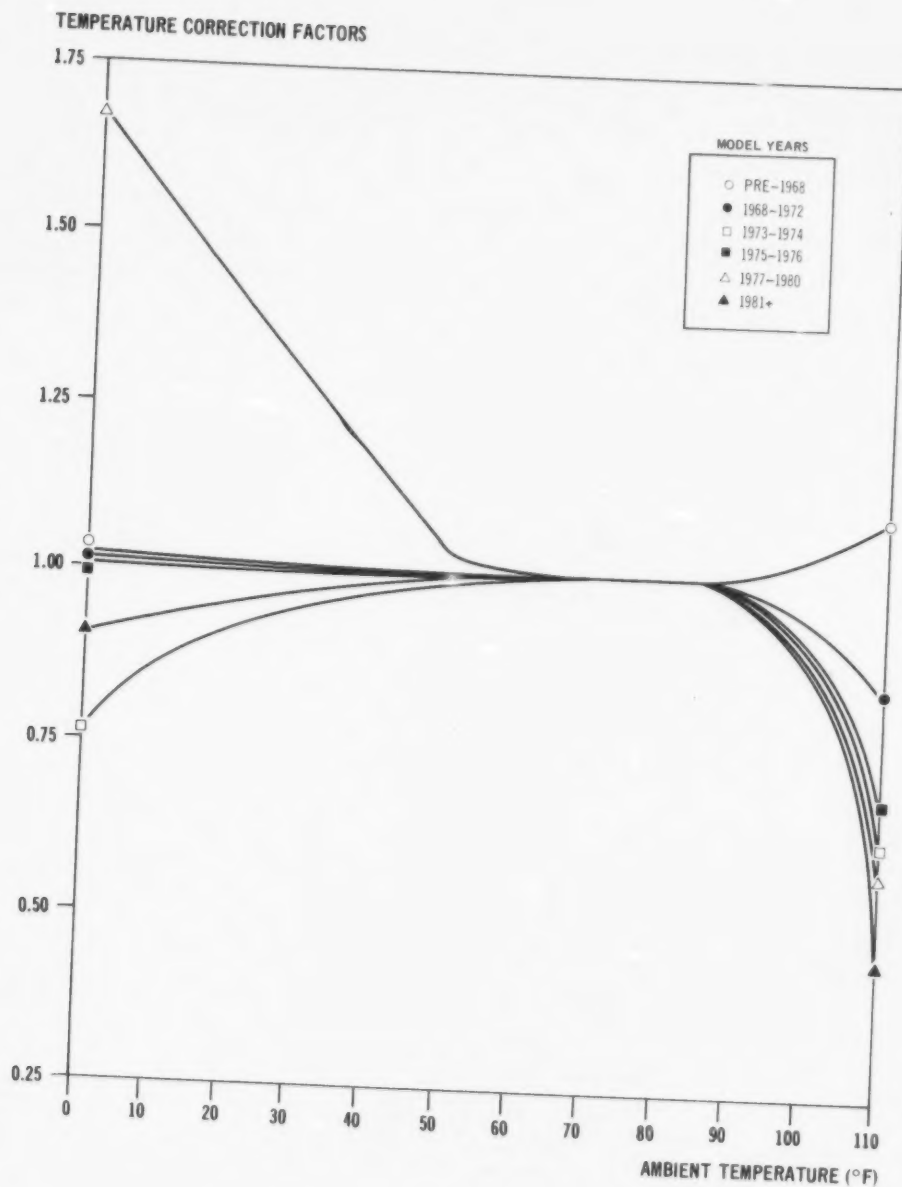


TEMPERATURE CORRECTION FACTORS

FIGURE 46

LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 1 - OXIDES OF NITROGEN

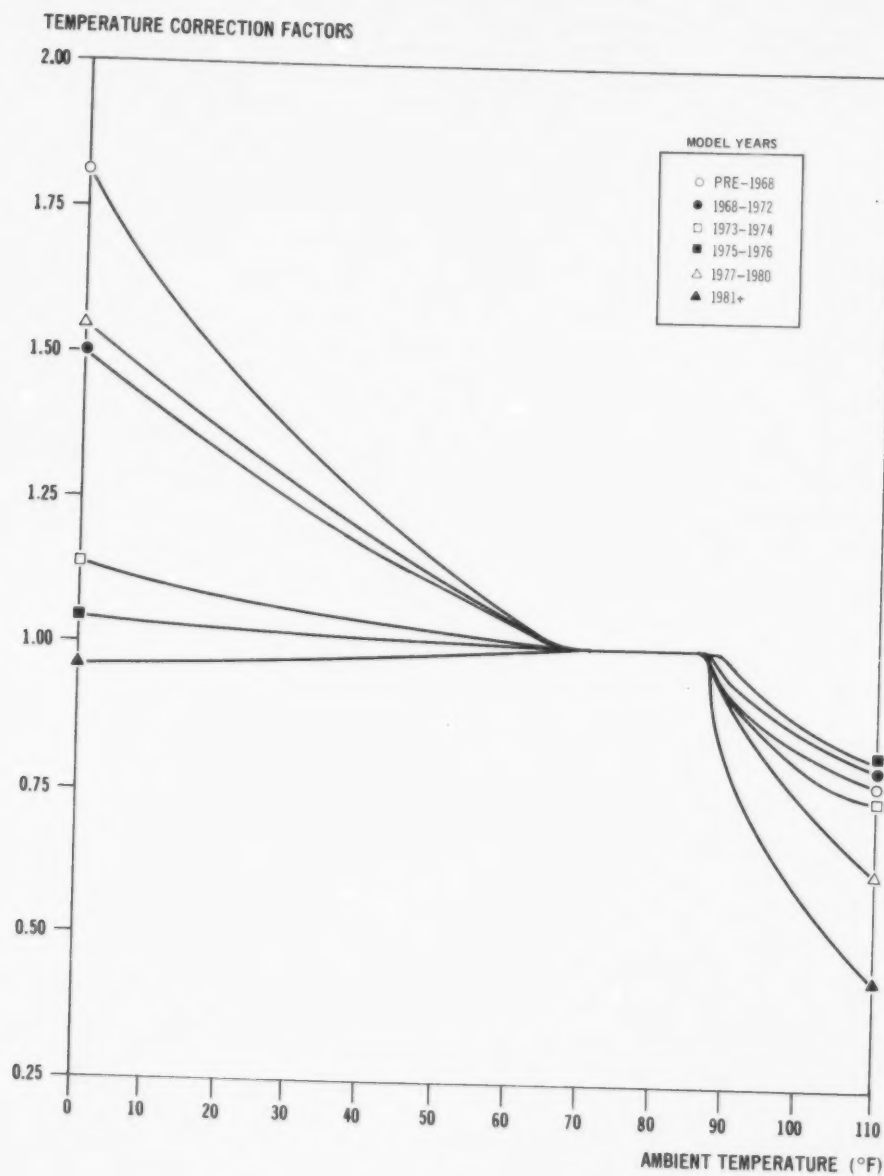
LOW ALTITUDE 49-STATE



# TEMPERATURE CORRECTION FACTORS

FIGURE 47  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 2 - OXIDES OF NITROGEN

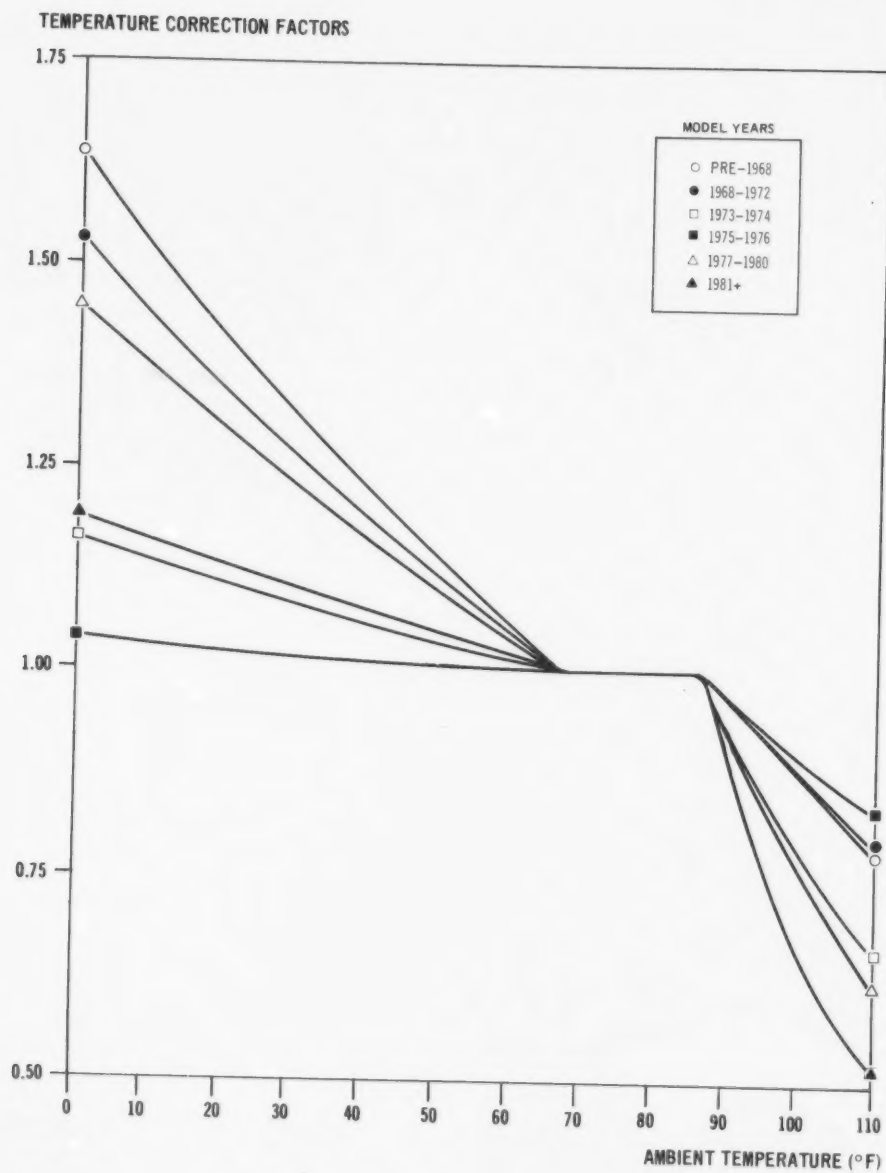
LOW ALTITUDE 49-STATE



# TEMPERATURE CORRECTION FACTORS

FIGURE 48  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
BAG 3 - OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

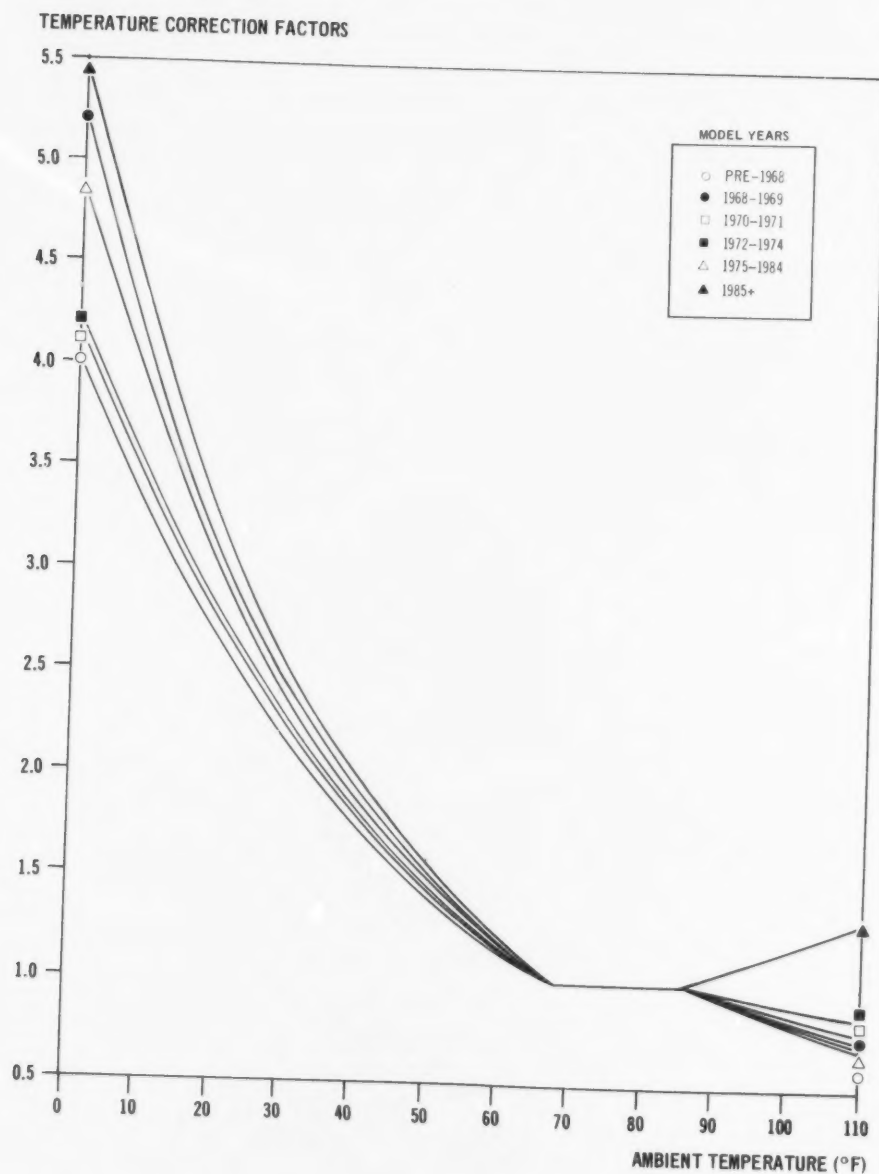


# TEMPERATURE CORRECTION FACTORS

FIGURE 49

## LIGHT DUTY GASOLINE-POWERED TRUCKS I BAG 1 - HYDROCARBONS

LOW ALTITUDE 49-STATE

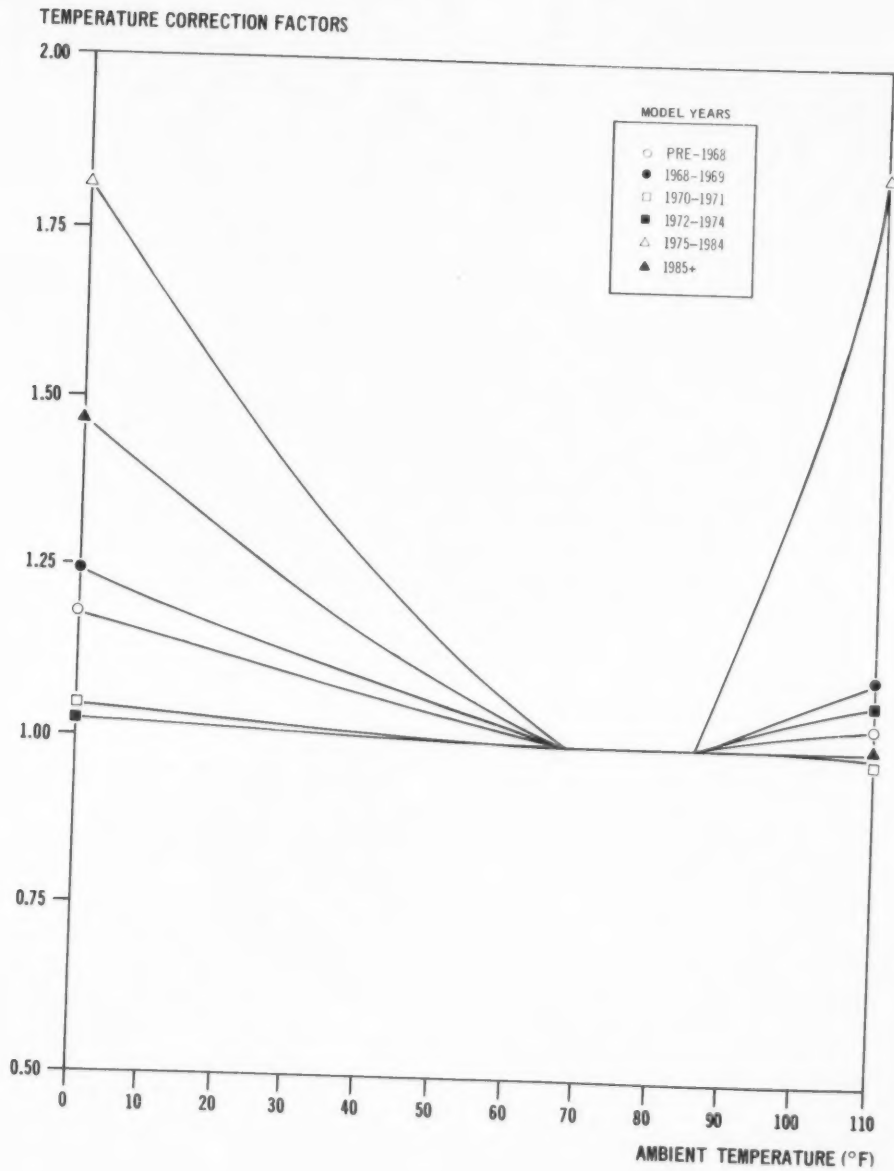


TEMPERATURE CORRECTION FACTORS

FIGURE 50

LIGHT DUTY GASOLINE-POWERED TRUCKS I  
BAG 2 - HYDROCARBONS

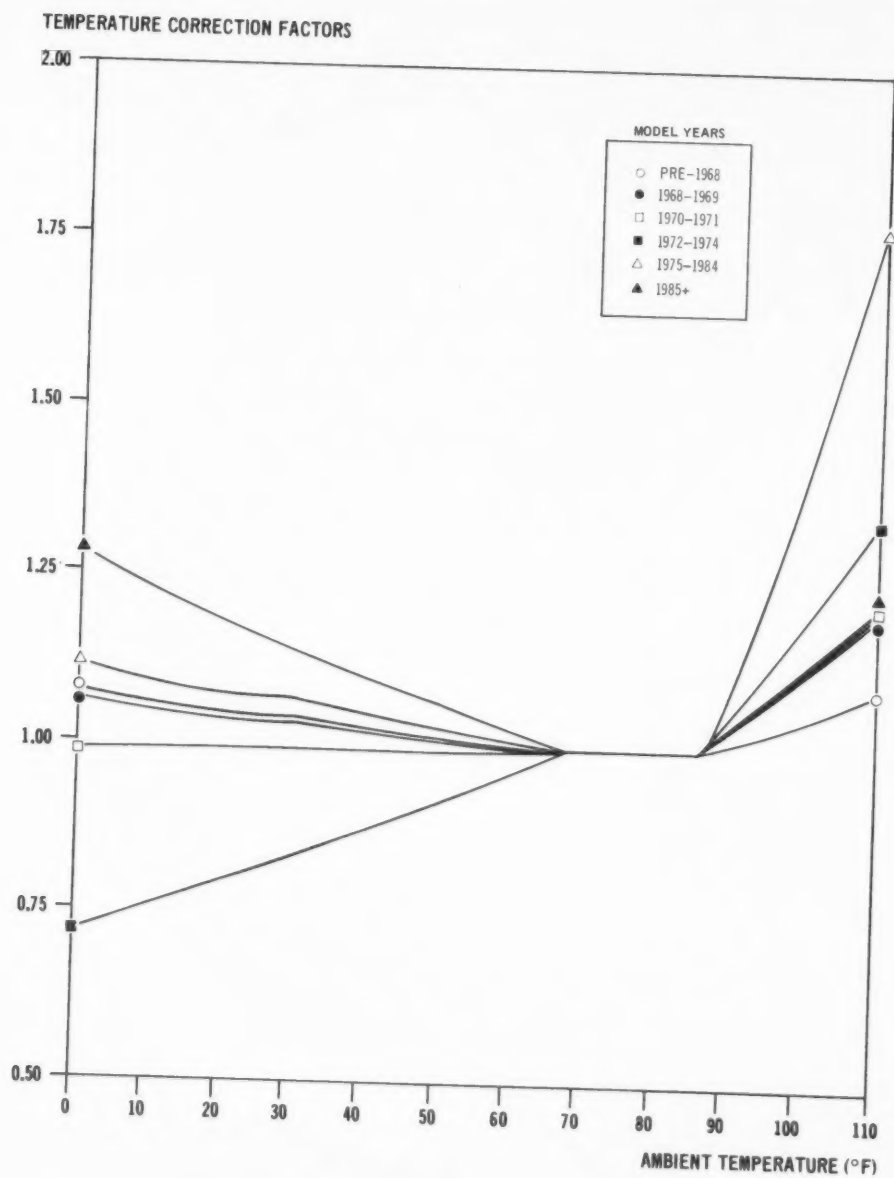
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 51  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
BAG 3 - HYDROCARBONS

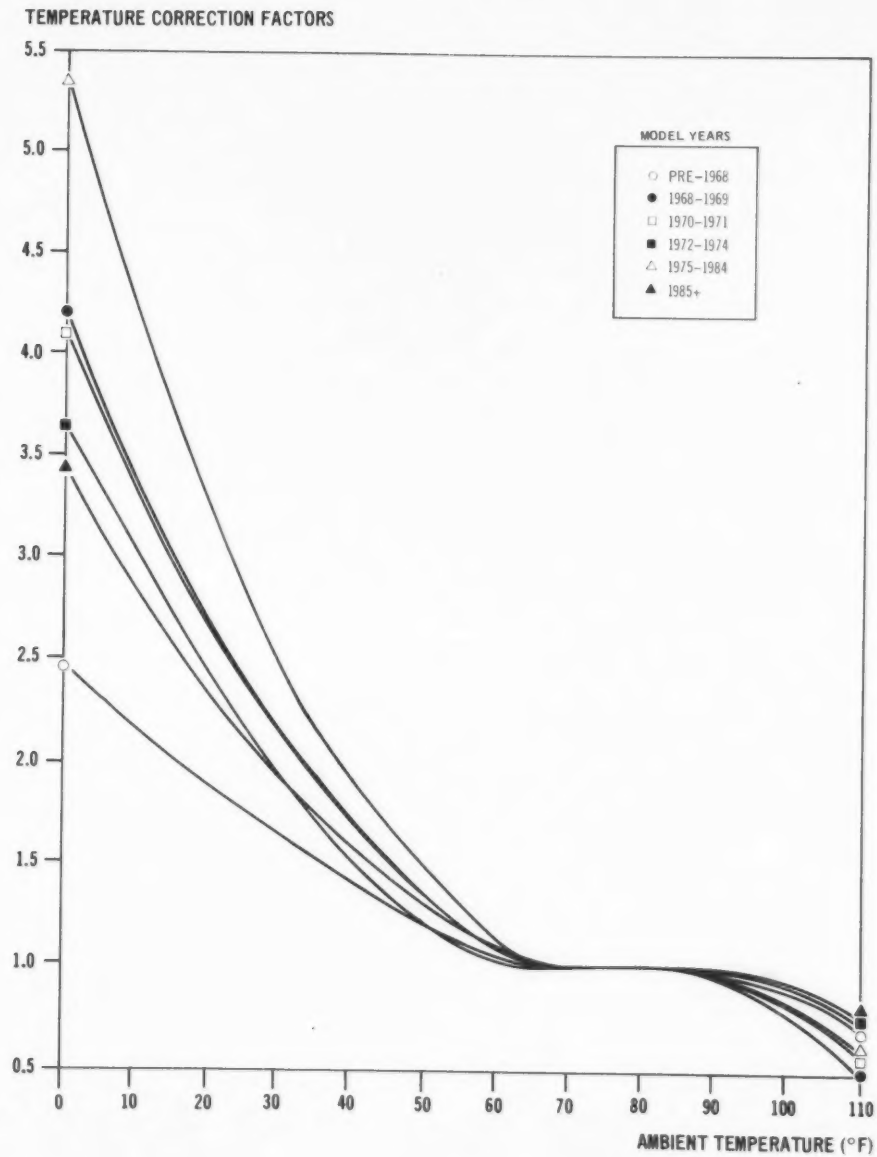
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 52  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
BAG 1 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE



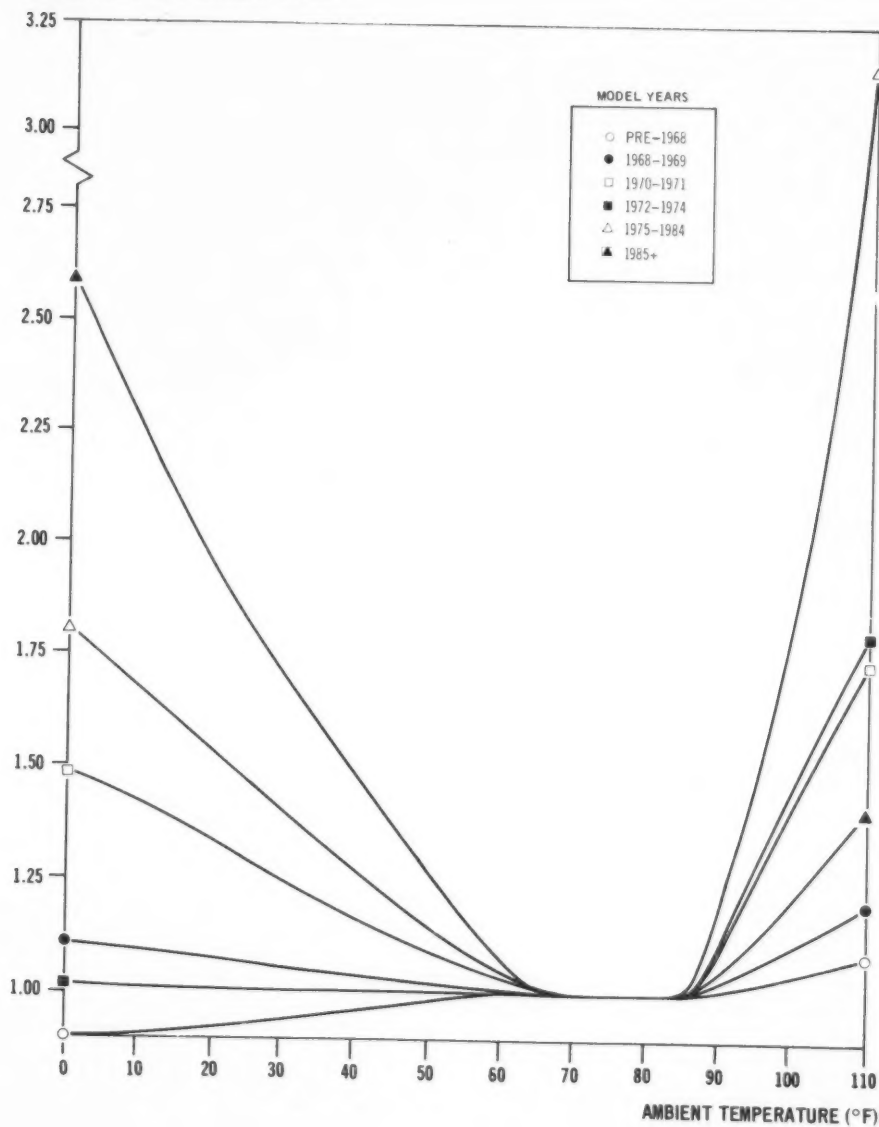


# TEMPERATURE CORRECTION FACTORS

FIGURE 53  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
BAG 2 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

## TEMPERATURE CORRECTION FACTORS



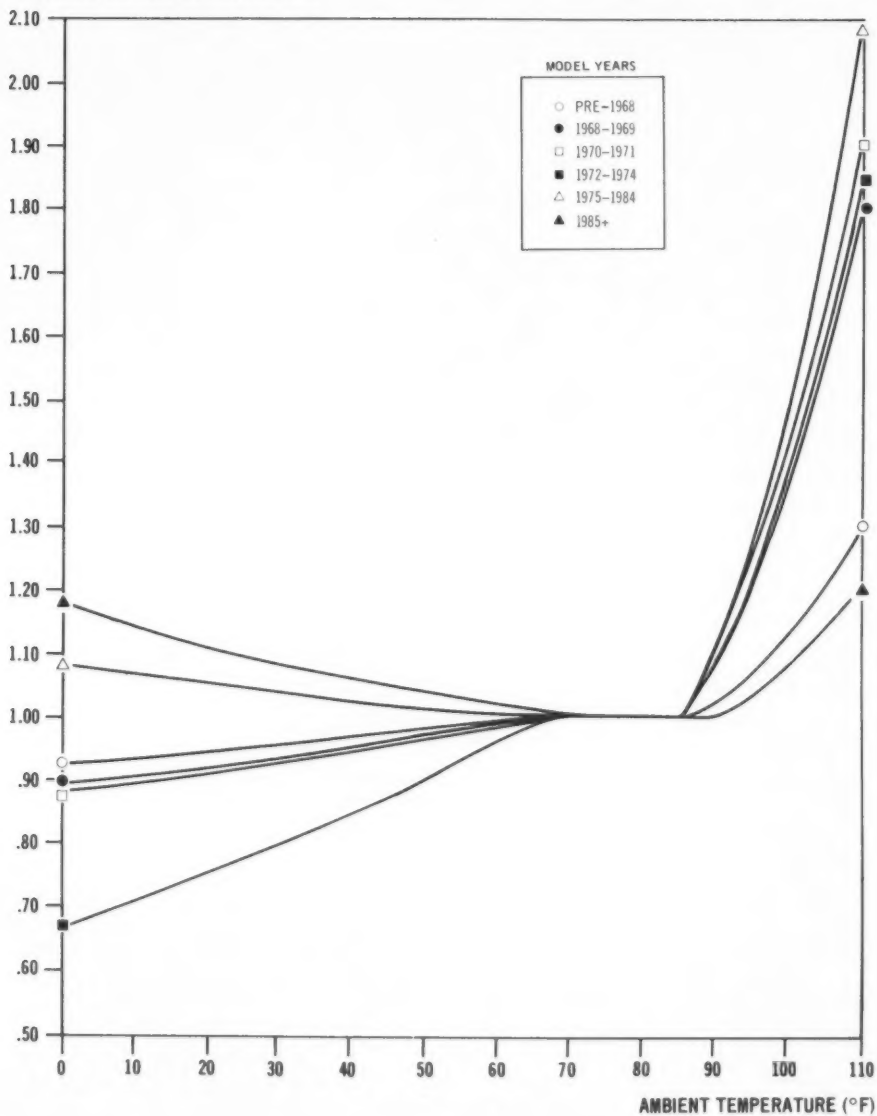
# TEMPERATURE CORRECTION FACTORS

FIGURE 54

## LIGHT DUTY GASOLINE-POWERED TRUCKS I BAG 3 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

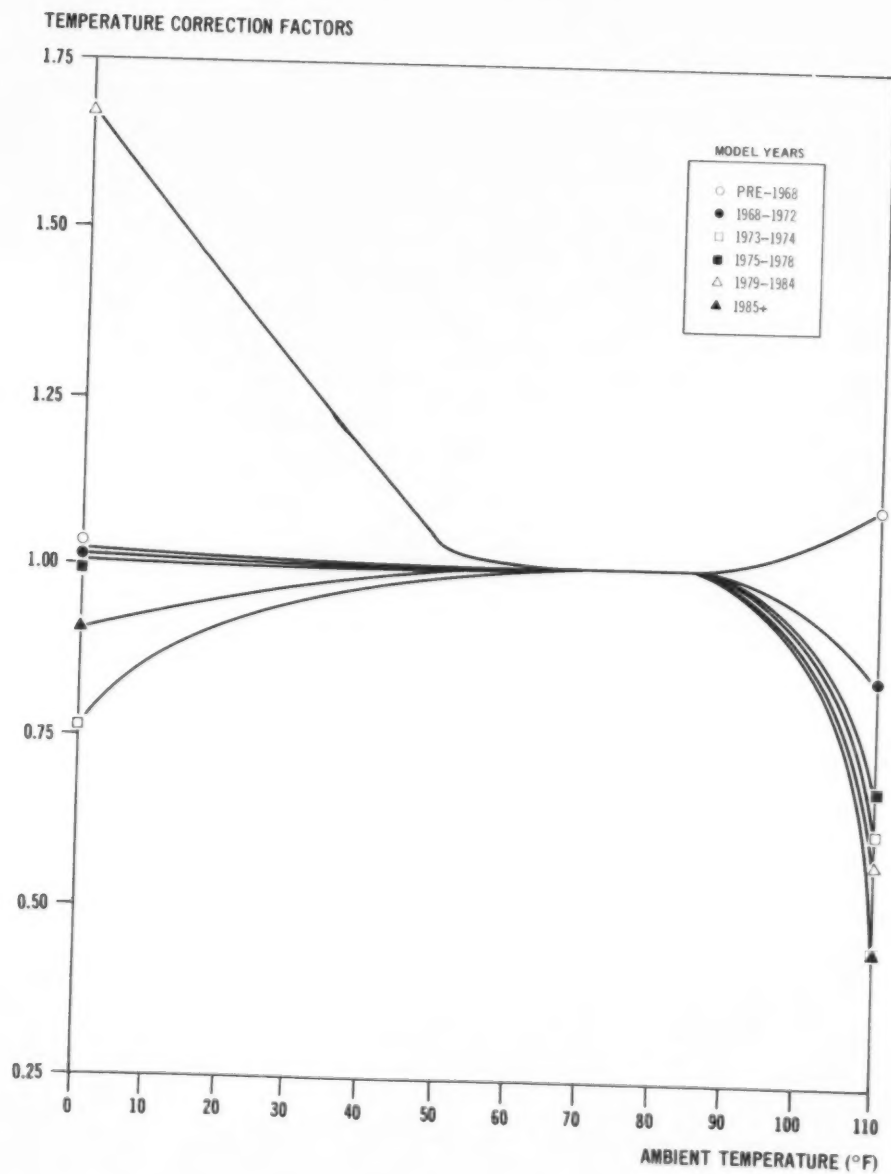
### TEMPERATURE CORRECTION FACTORS



# TEMPERATURE CORRECTION FACTORS

FIGURE 55  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
BAG 1 - OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE



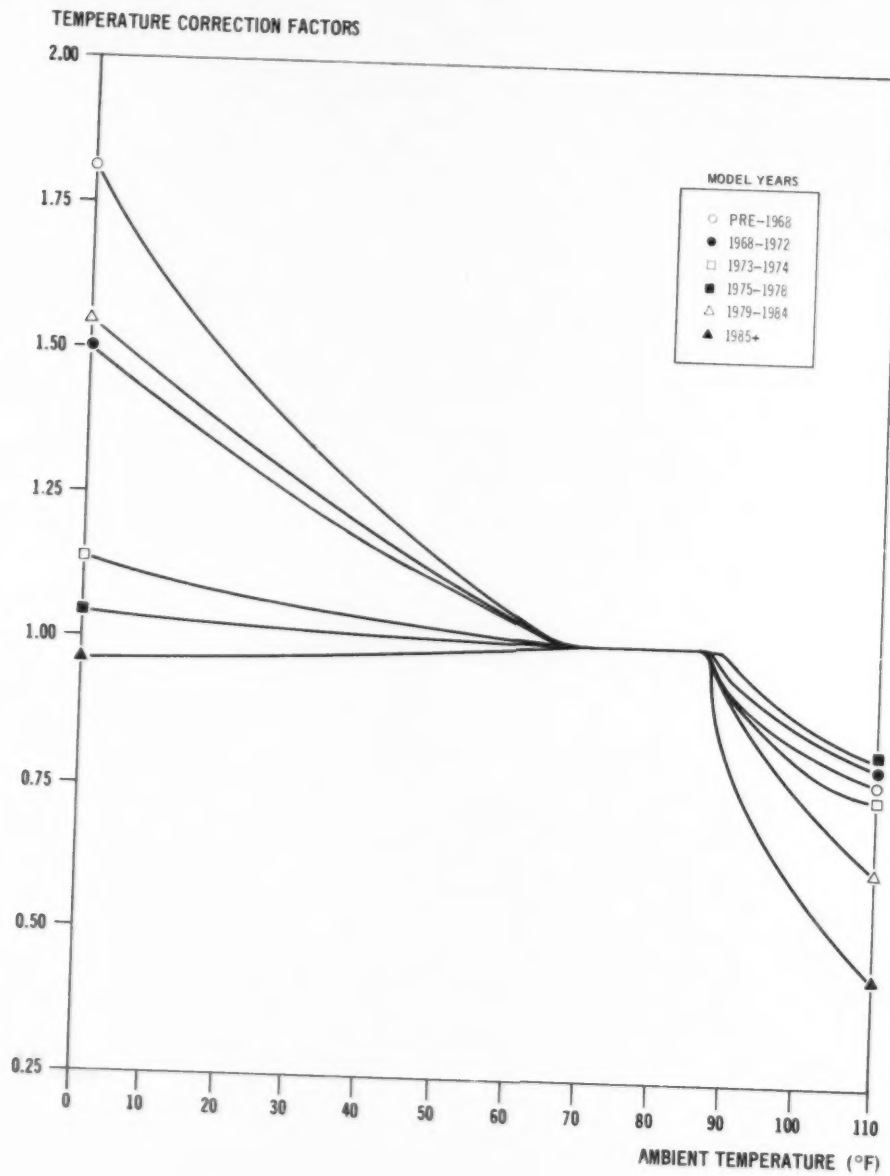
# TEMPERATURE CORRECTION FACTORS

FIGURE 56

## LIGHT DUTY GASOLINE-POWERED TRUCKS I

### BAG 2 - OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

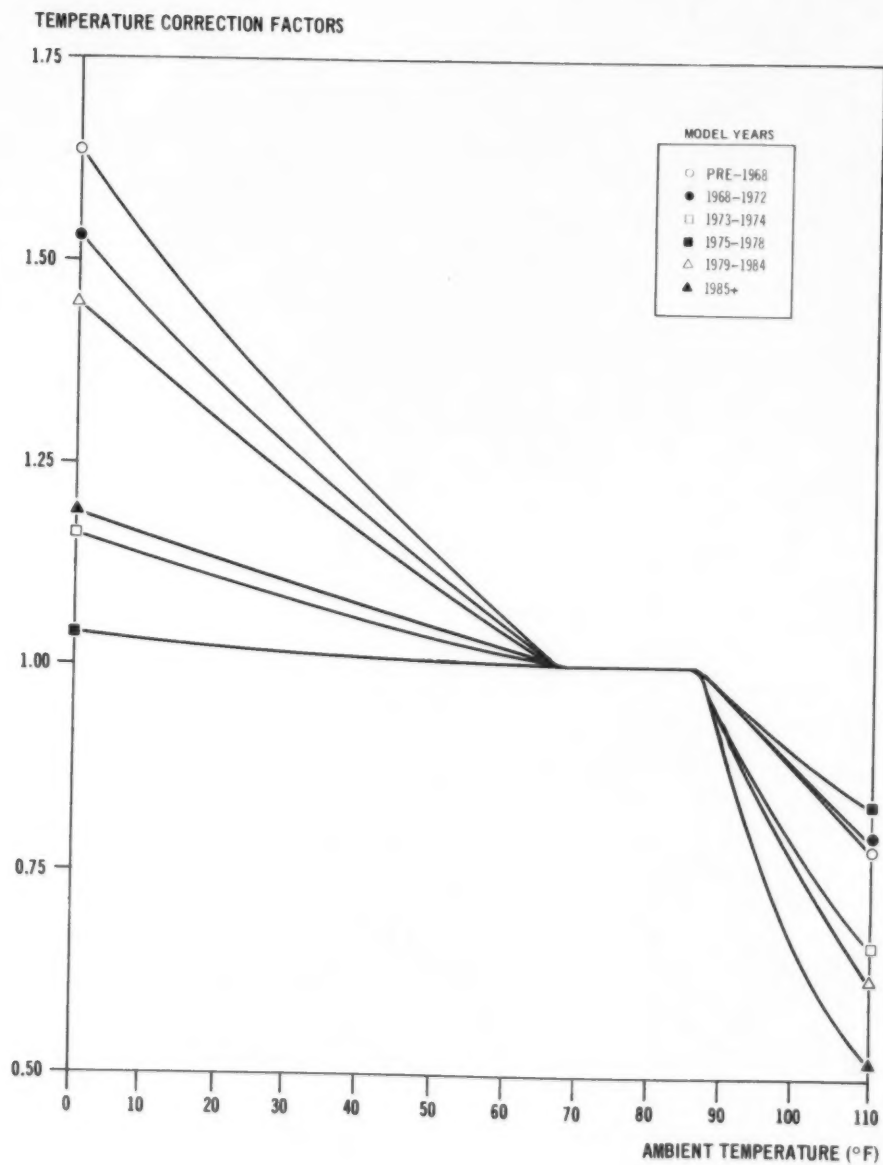


TEMPERATURE CORRECTION FACTORS

FIGURE 57

LIGHT DUTY GASOLINE-POWERED TRUCKS I  
BAG 3 - OXIDES OF NITROGEN

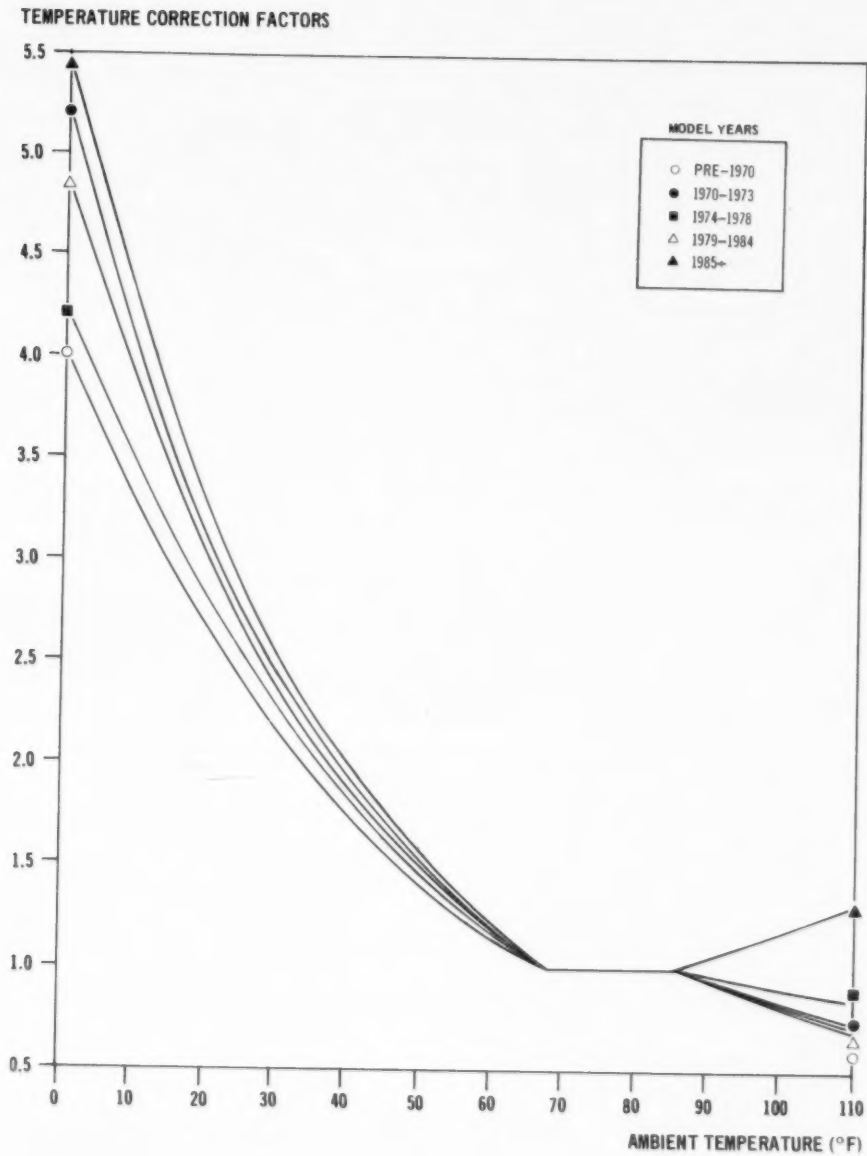
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

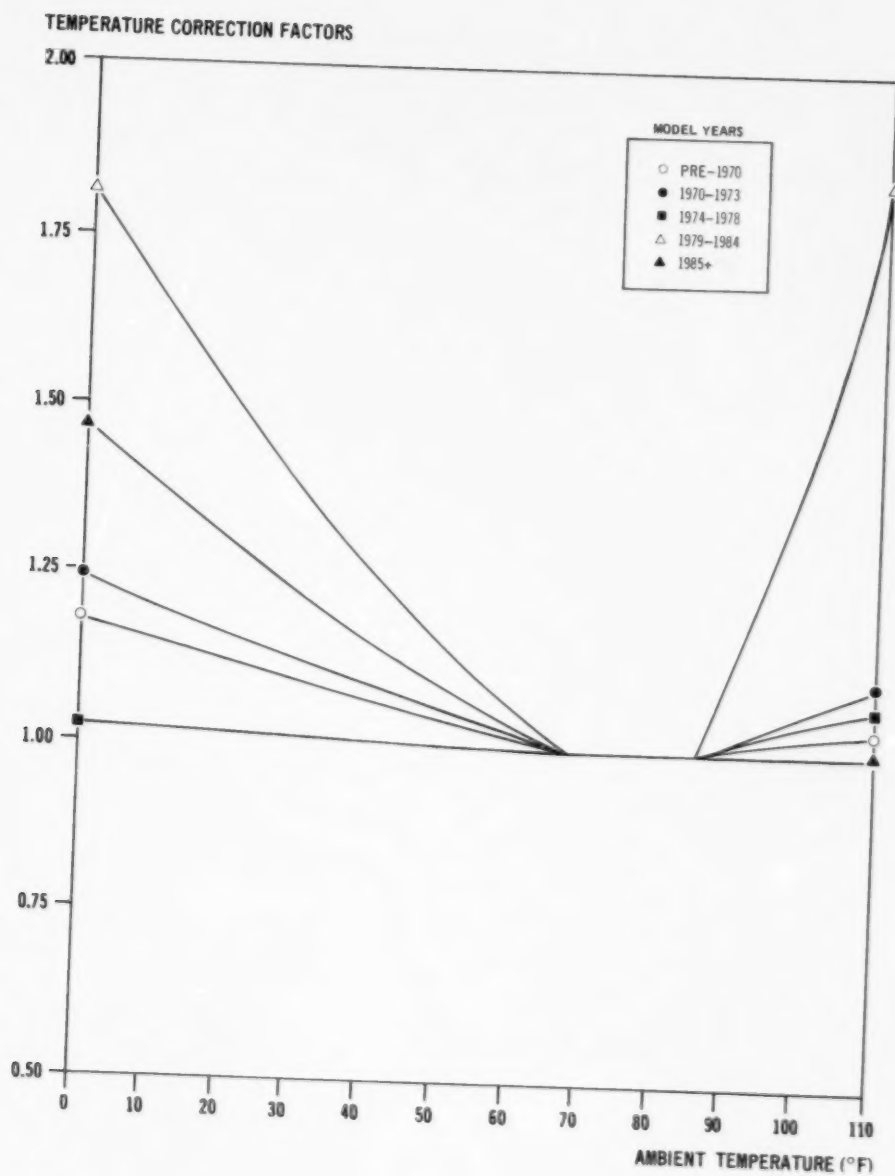
FIGURE 58  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG I - HYDROCARBONS

LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

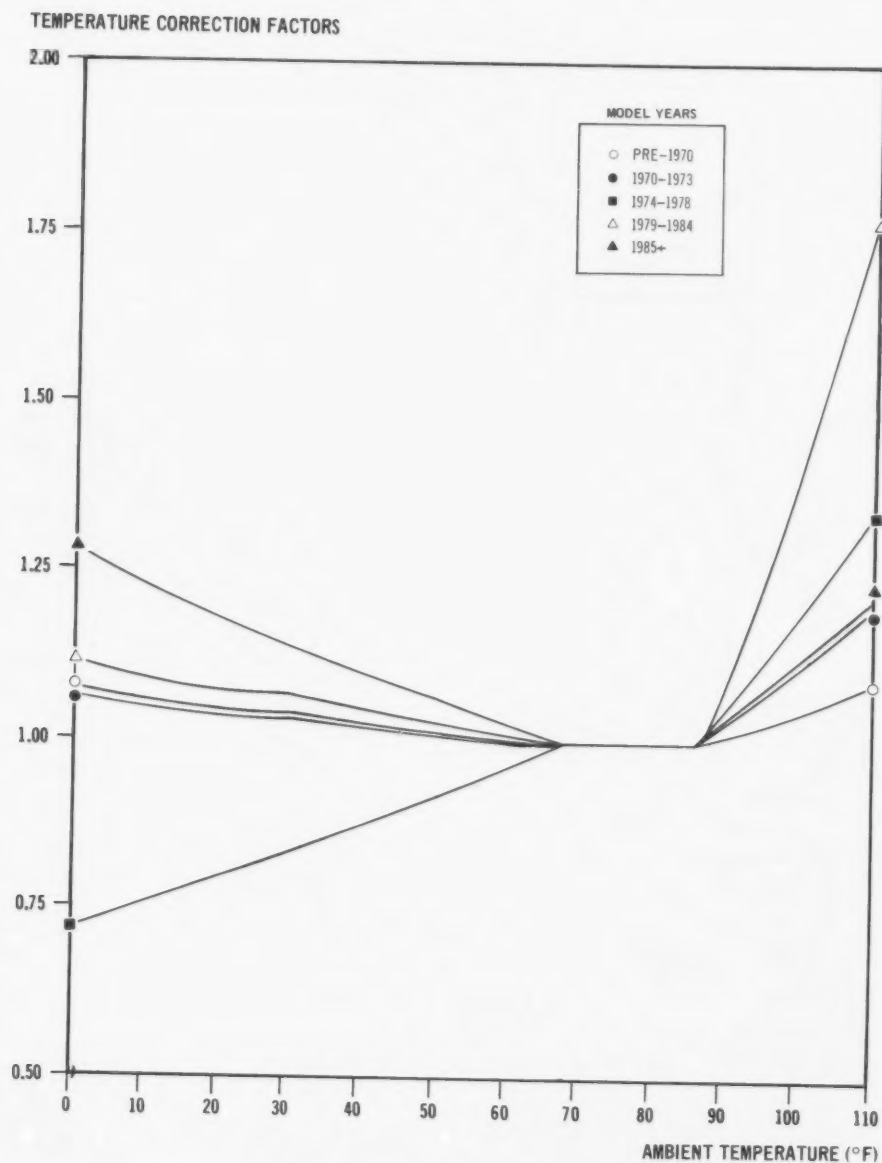
FIGURE 59  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 2 - HYDROCARBONS  
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 60  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 3 - HYDROCARBONS

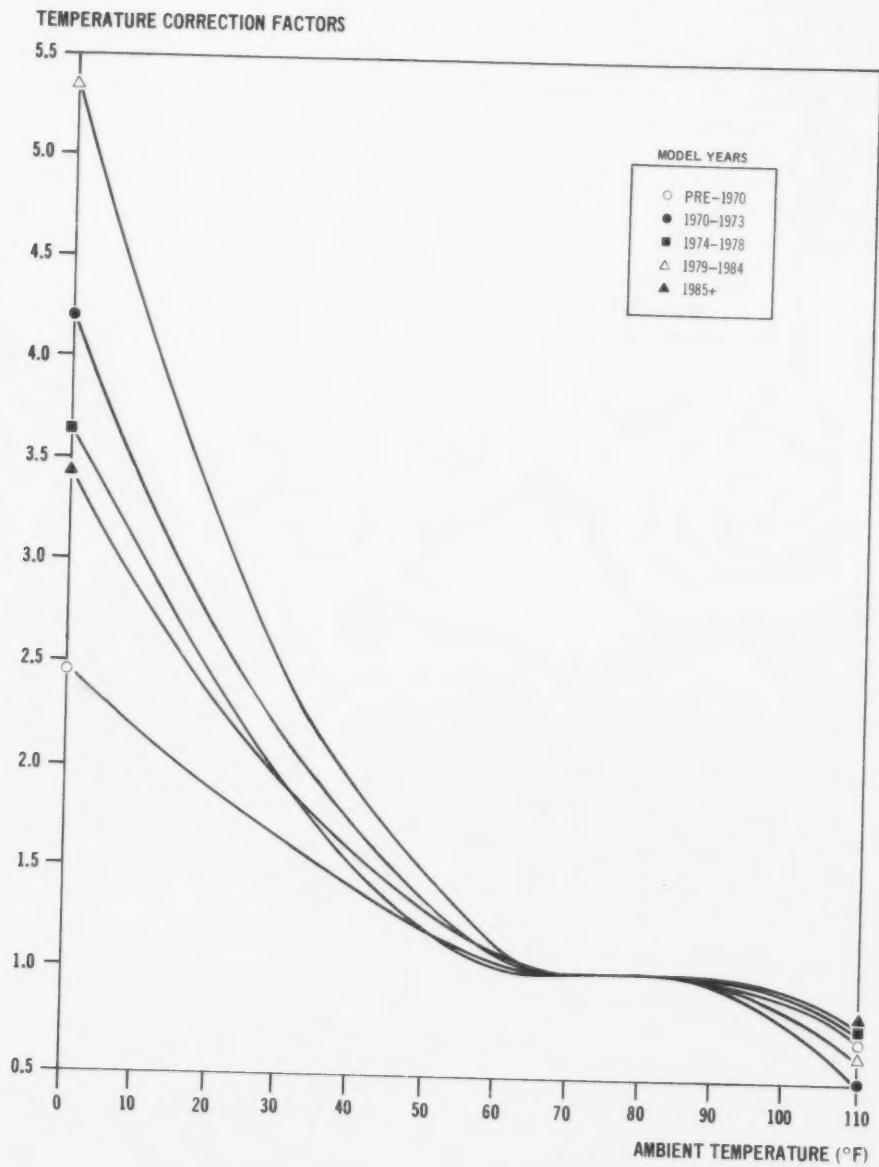
LOW ALTITUDE 49-STATE





TEMPERATURE CORRECTION FACTORS

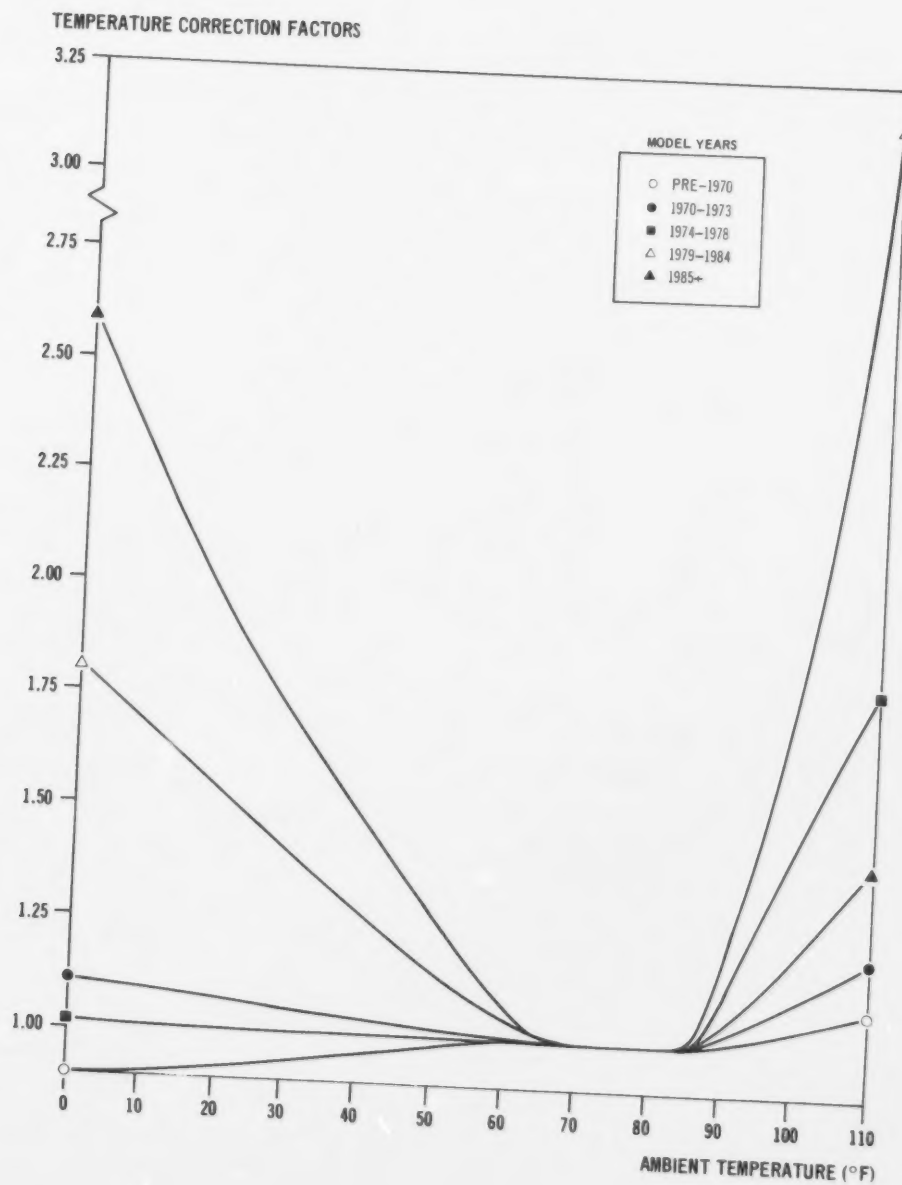
FIGURE 61  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 1 - CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 62  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 2 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

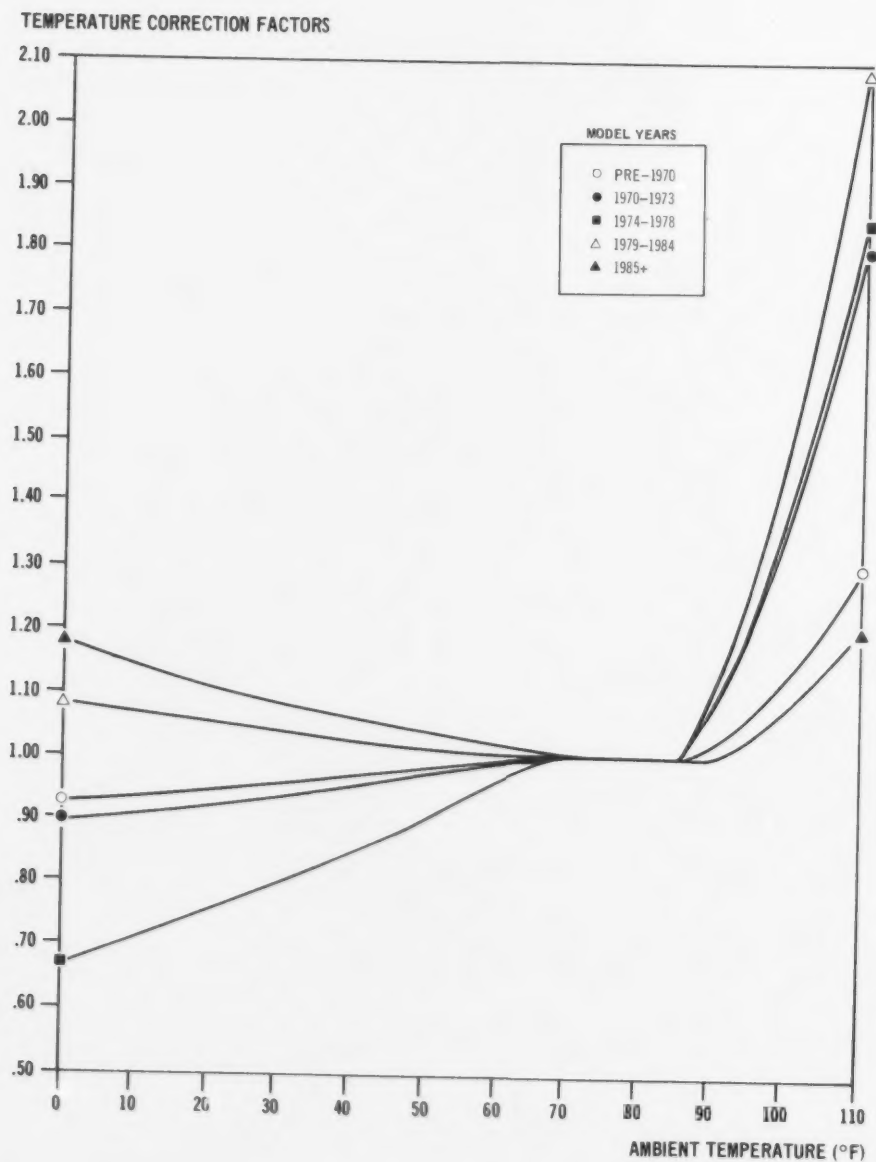


# TEMPERATURE CORRECTION FACTORS

FIGURE 63

## LIGHT DUTY GASOLINE-POWERED TRUCKS II BAG 3 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE

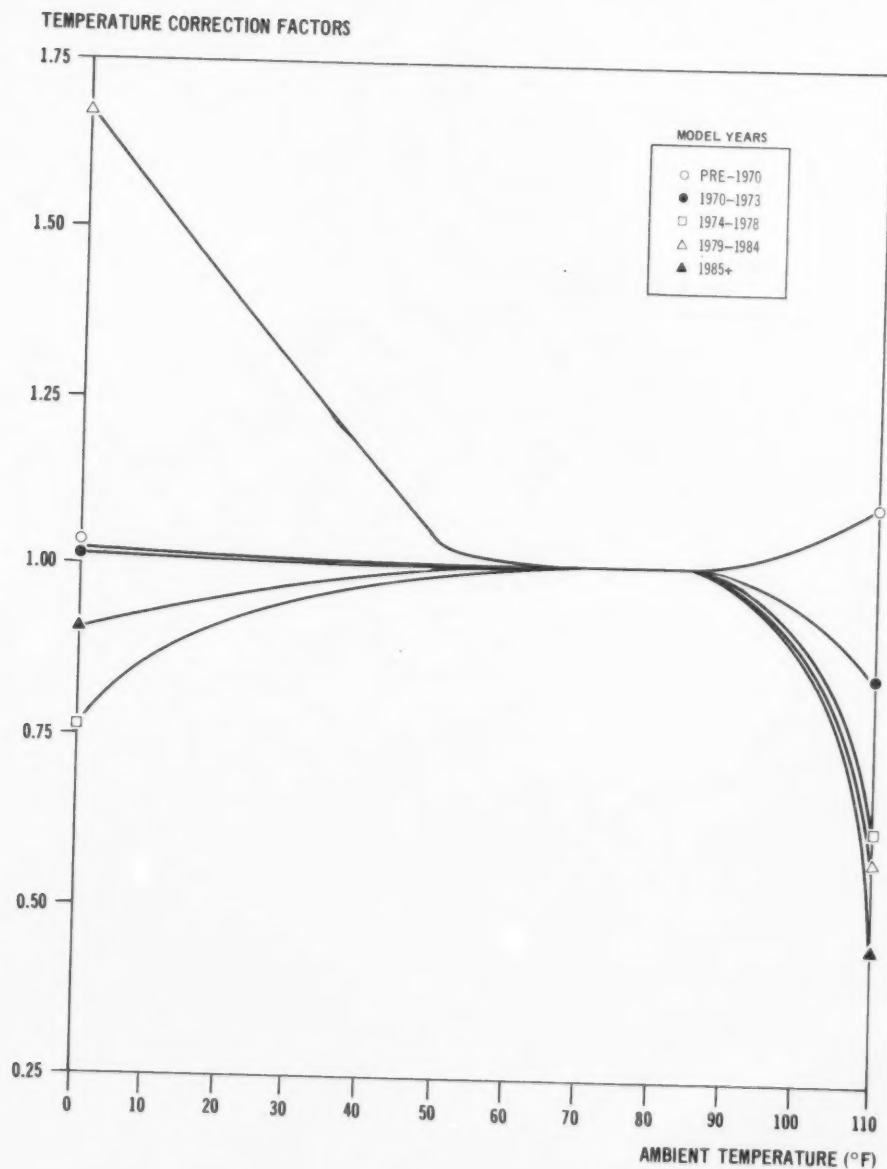


TEMPERATURE CORRECTION FACTORS

FIGURE 64

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 1 - OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

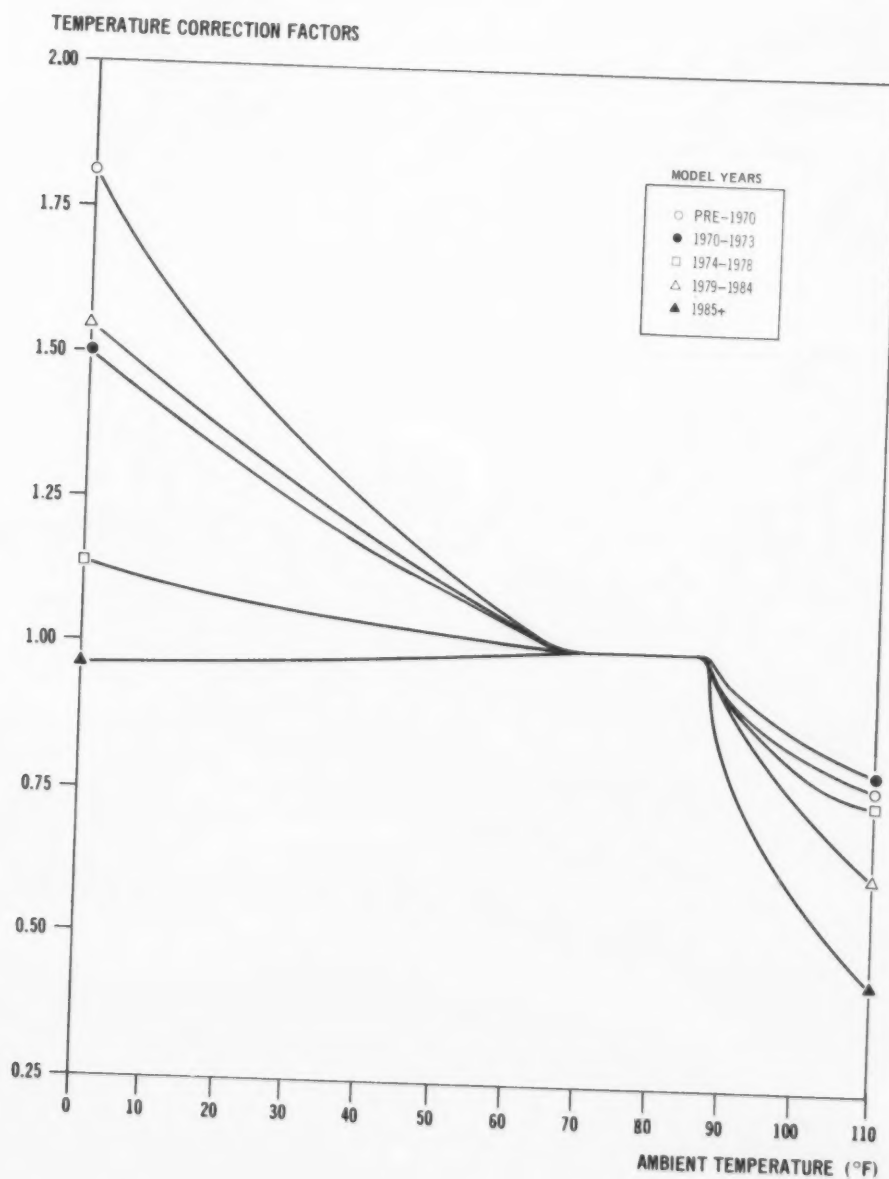


TEMPERATURE CORRECTION FACTORS

FIGURE 65

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 2 - OXIDES OF NITROGEN

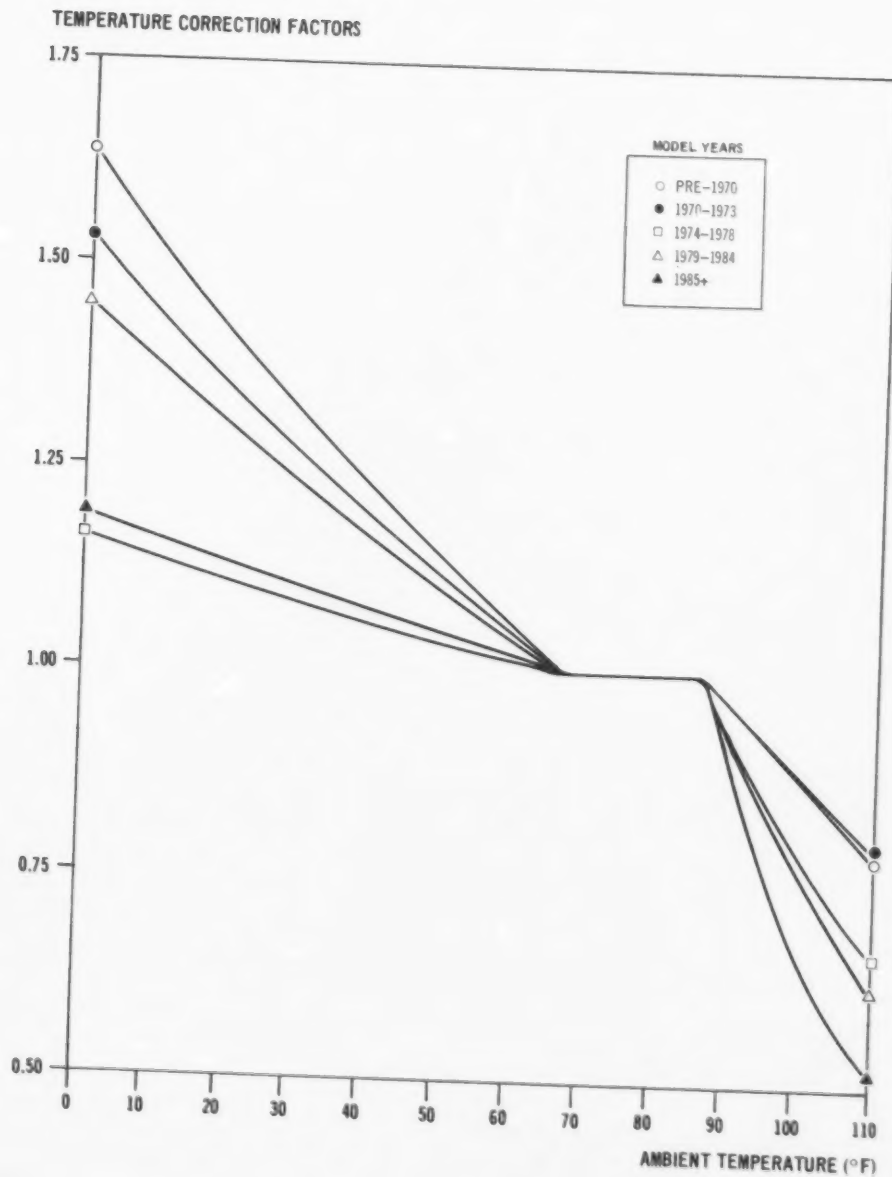
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 66  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
BAG 3 - OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

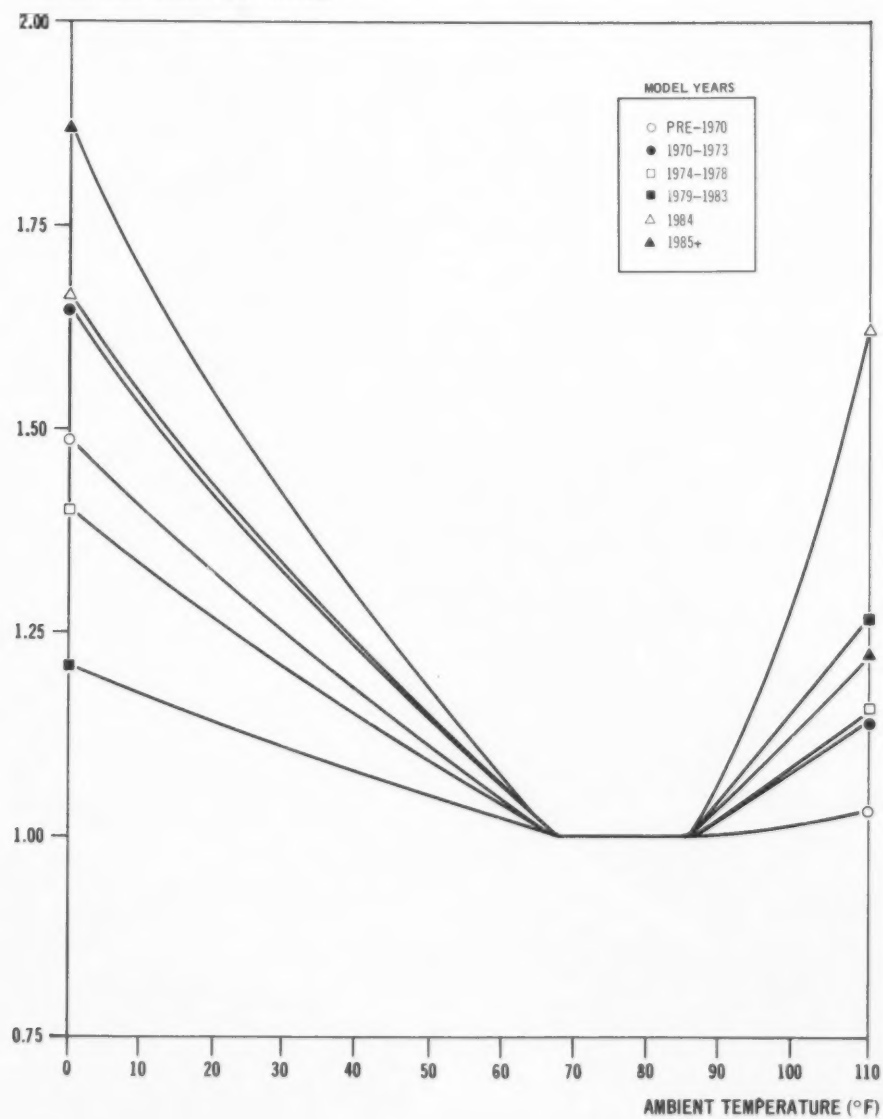


TEMPERATURE CORRECTION FACTORS

FIGURE 67  
HEAVY DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS

LOW ALTITUDE 49-STATE

TEMPERATURE CORRECTION FACTORS

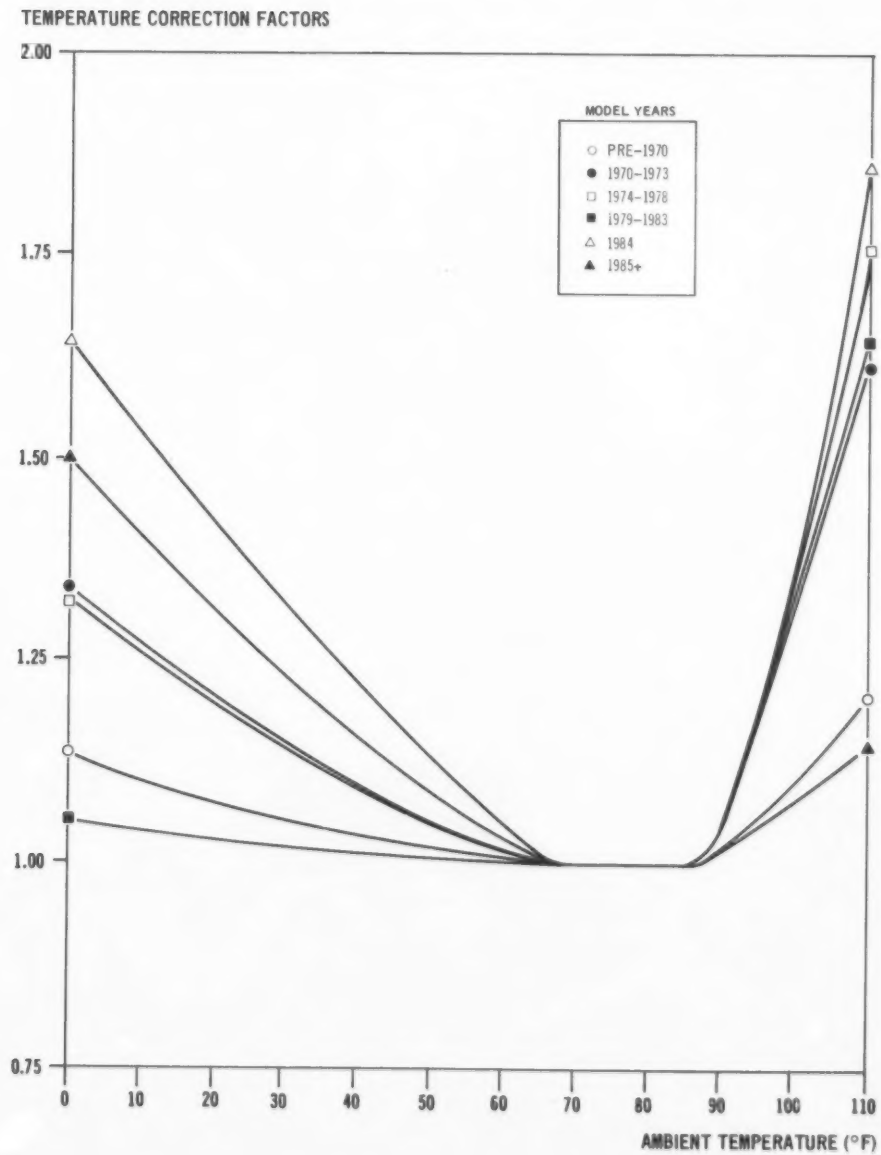


TEMPERATURE CORRECTION FACTORS

FIGURE 68

HEAVY DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE

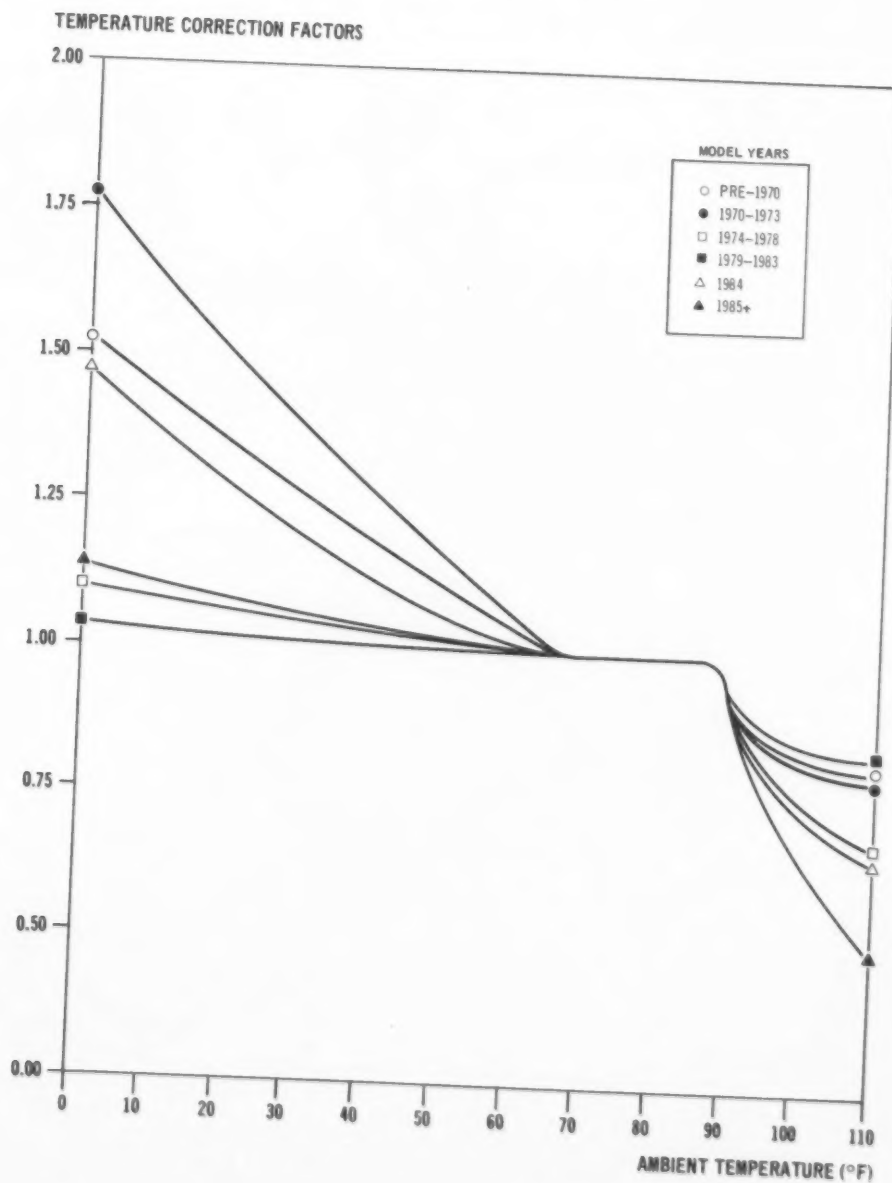
LOW ALTITUDE 49-STATE





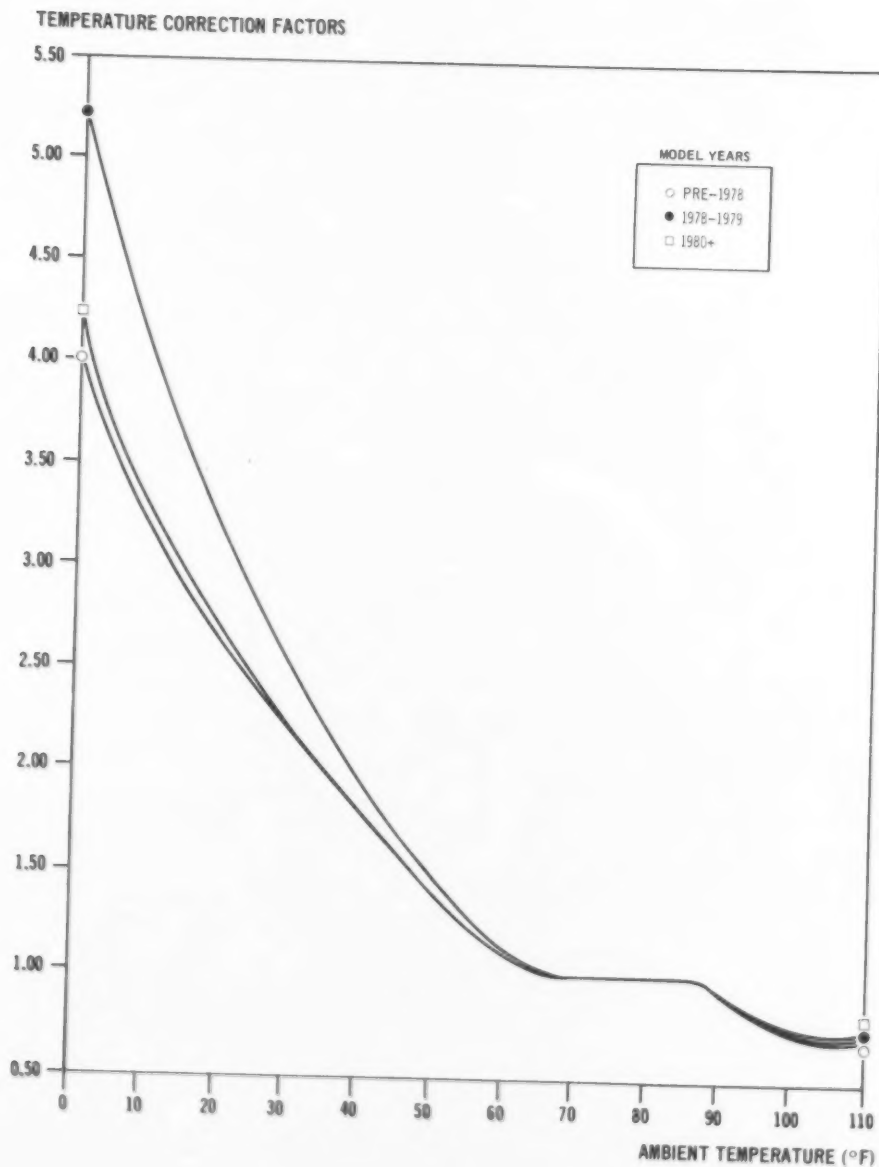
# TEMPERATURE CORRECTION FACTORS

FIGURE 69  
HEAVY DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN  
LOW ALTITUDE 49-STATE



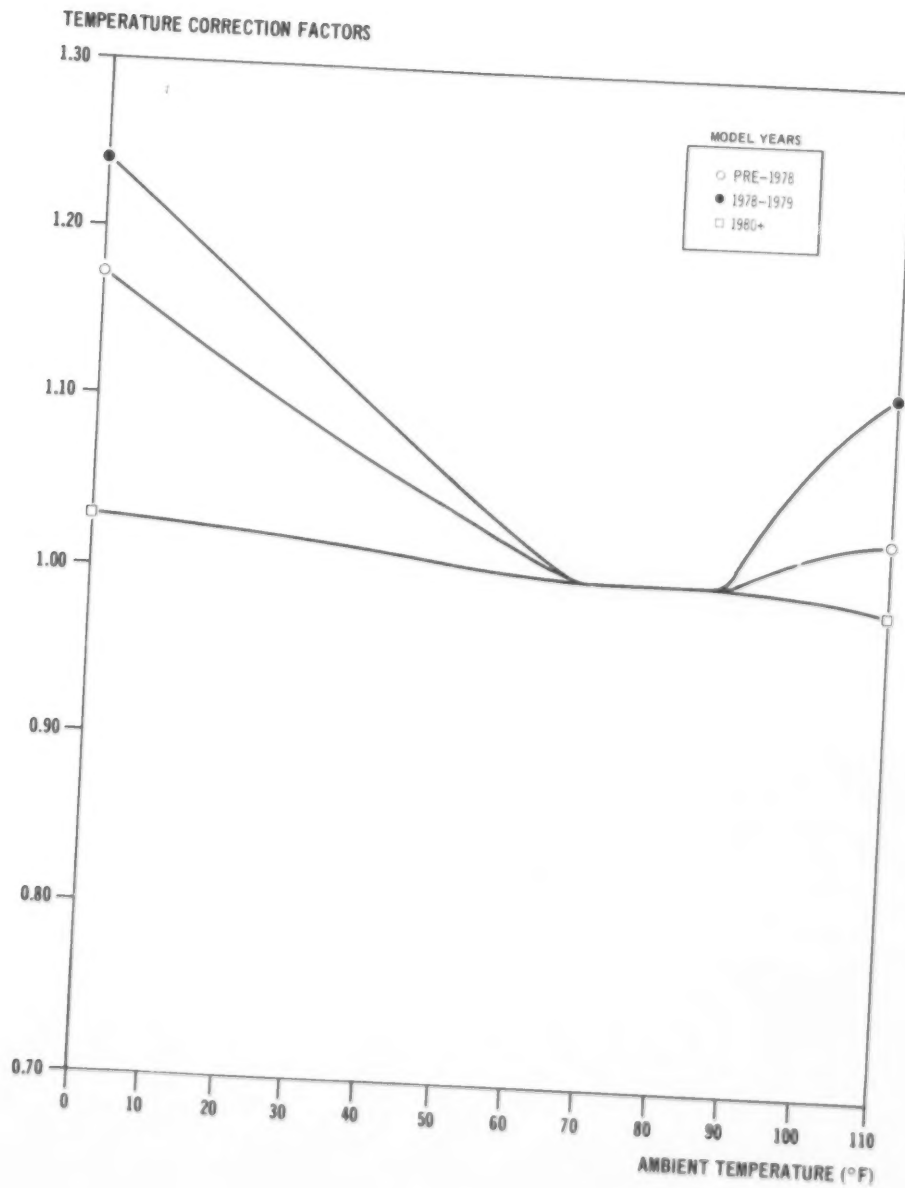
TEMPERATURE CORRECTION FACTORS

FIGURE 70  
**MOTORCYCLES**  
BAG 1 - HYDROCARBONS  
LOW ALTITUDE 49-STATE



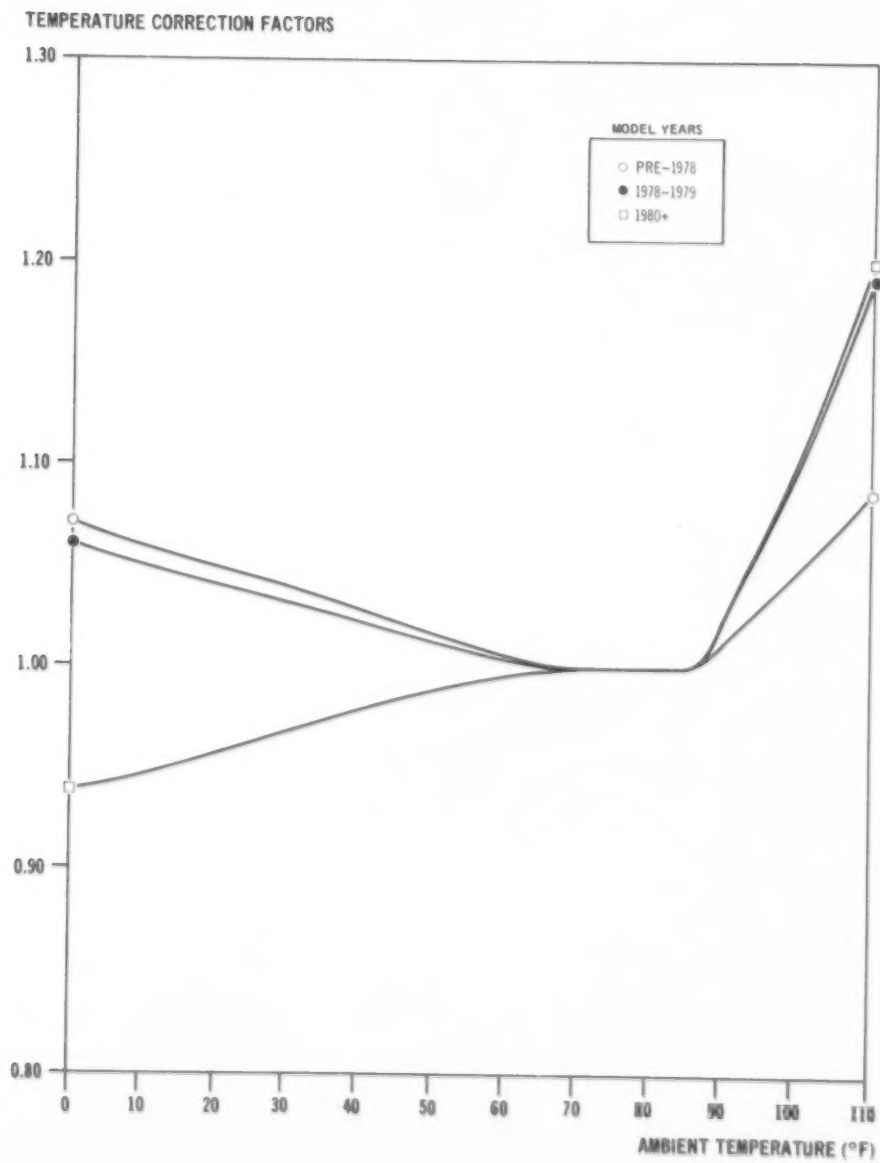
# TEMPERATURE CORRECTION FACTORS

FIGURE 71  
MOTORCYCLES  
BAG 2 - HYDROCARBONS  
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

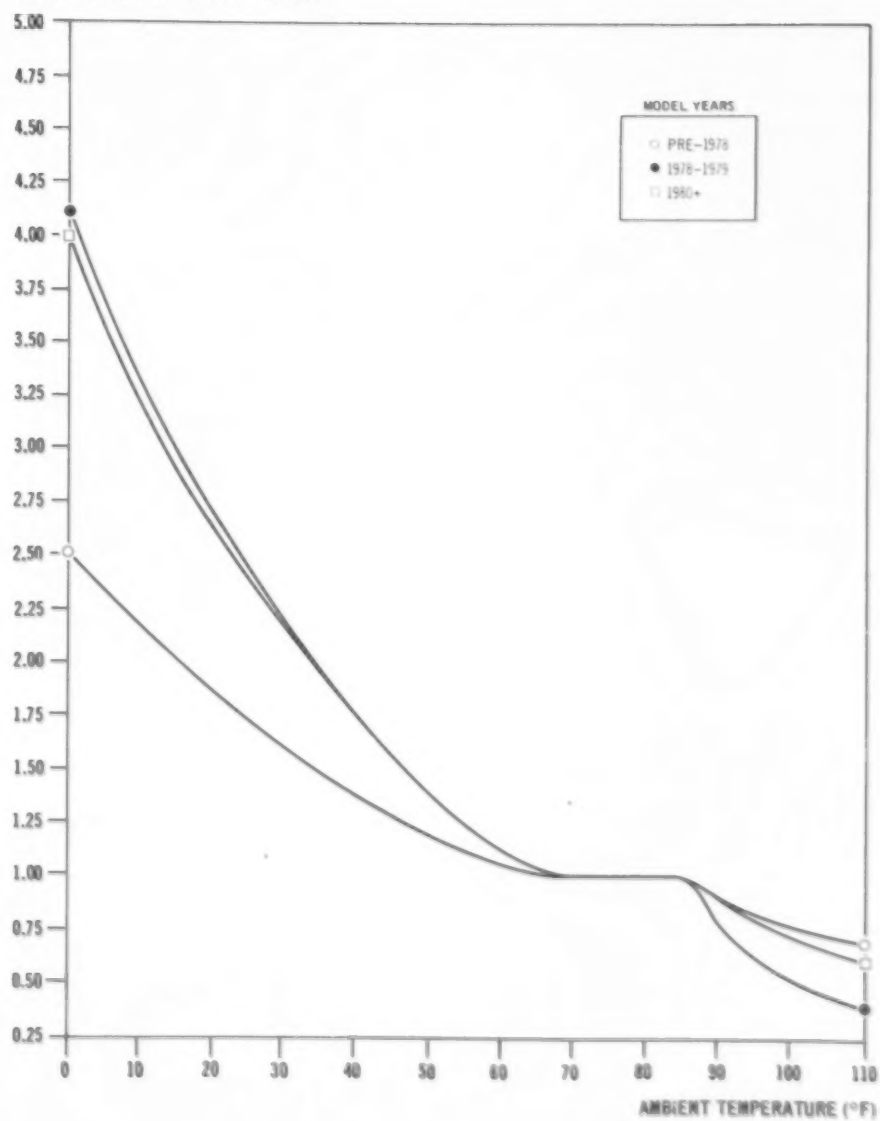
FIGURE 72  
MOTORCYCLES  
BAG 3 - HYDROCARBONS  
LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 73  
**MOTORCYCLES**  
BAG 1 - CARBON MONOXIDE  
LOW ALTITUDE 49-STATE

TEMPERATURE CORRECTION FACTORS



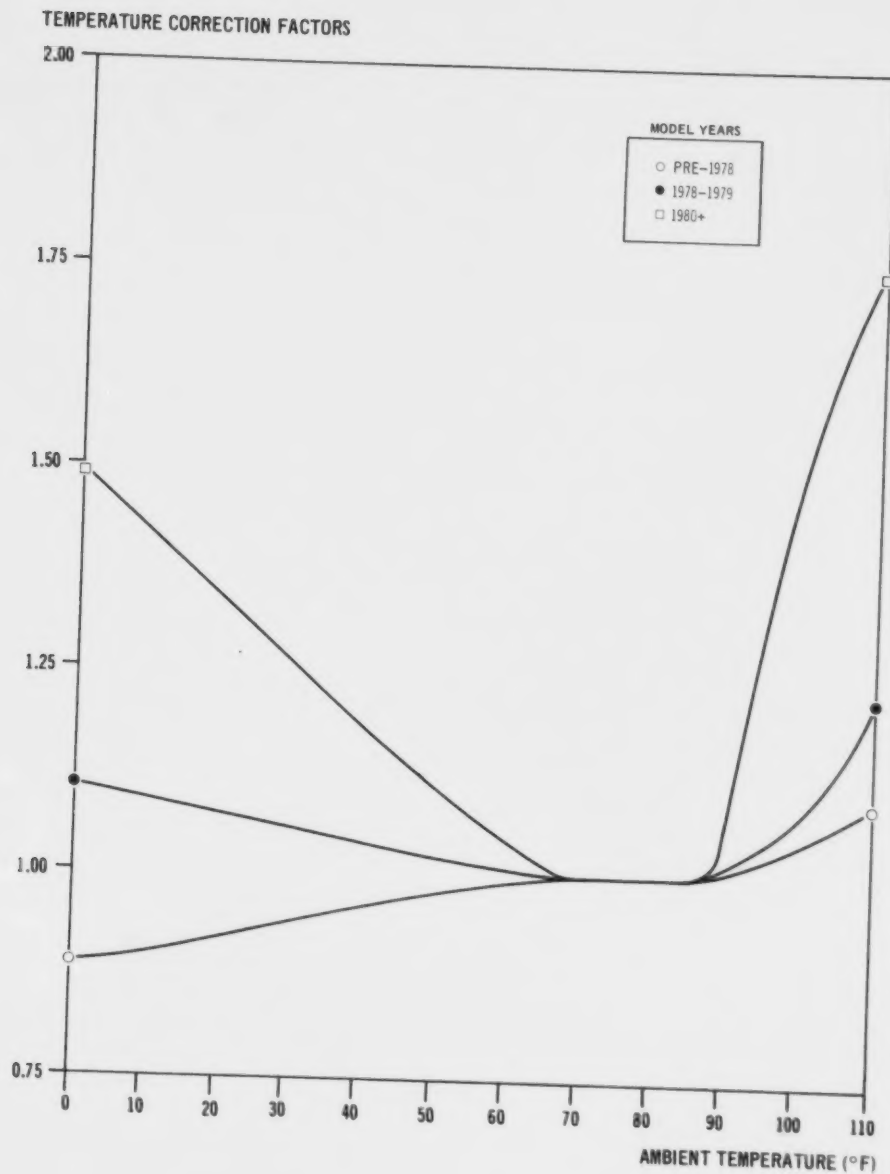
TEMPERATURE CORRECTION FACTORS

FIGURE 74

MOTORCYCLES

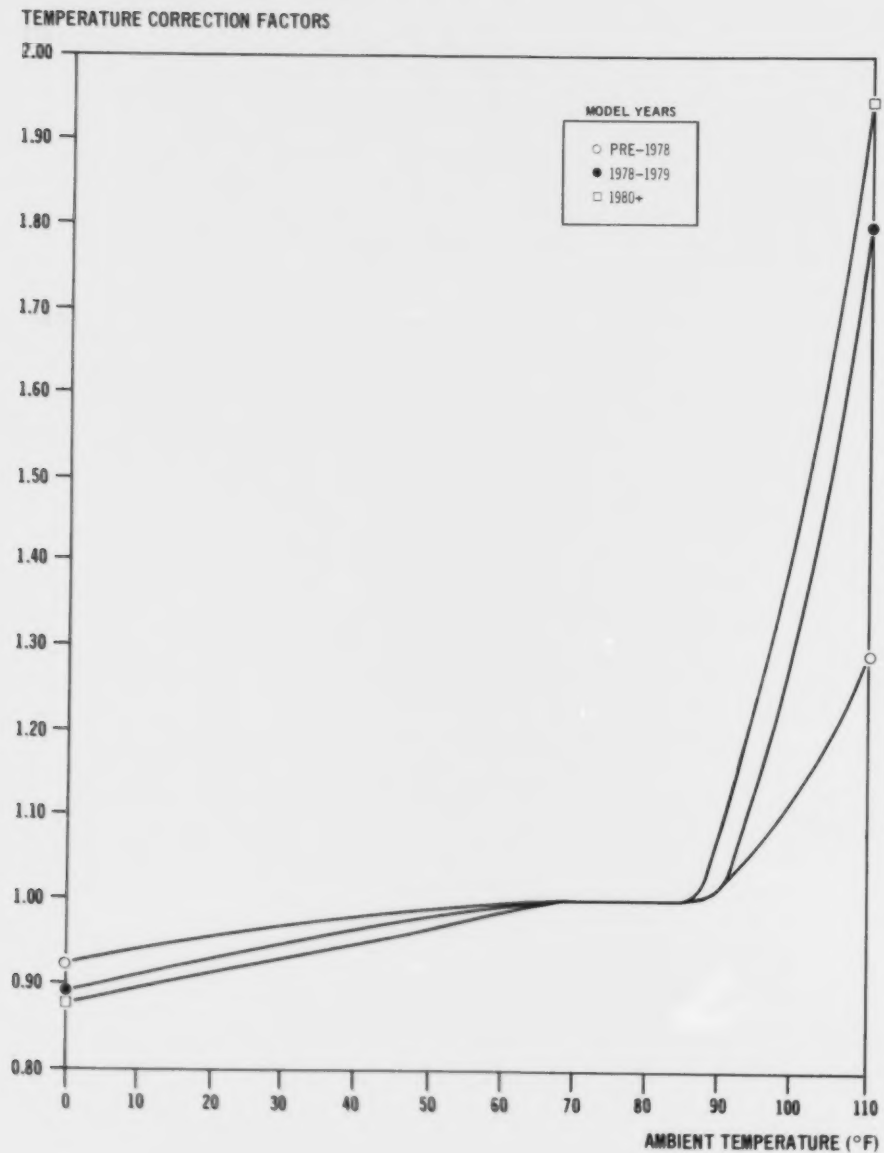
BAG 2 - CARBON MONOXIDE

LOW ALTITUDE 49-STATE



TEMPERATURE CORRECTION FACTORS

FIGURE 75  
**MOTORCYCLES**  
BAG 3 - CARBON MONOXIDE  
LOW ALTITUDE 49-STATE



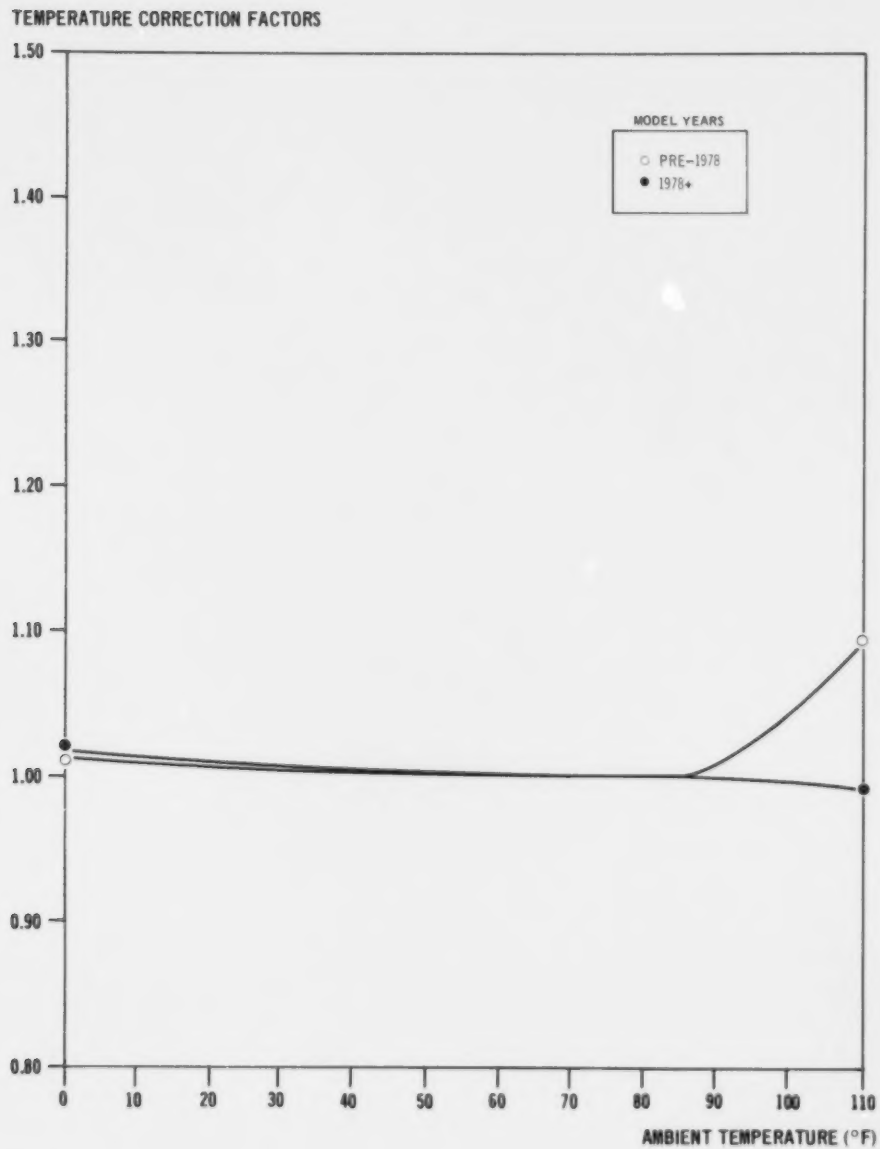
TEMPERATURE CORRECTION FACTORS

FIGURE 76

**MOTORCYCLES**

**BAG 1 - OXIDES OF NITROGEN**

LOW ALTITUDE 49-STATE





TEMPERATURE CORRECTION FACTORS

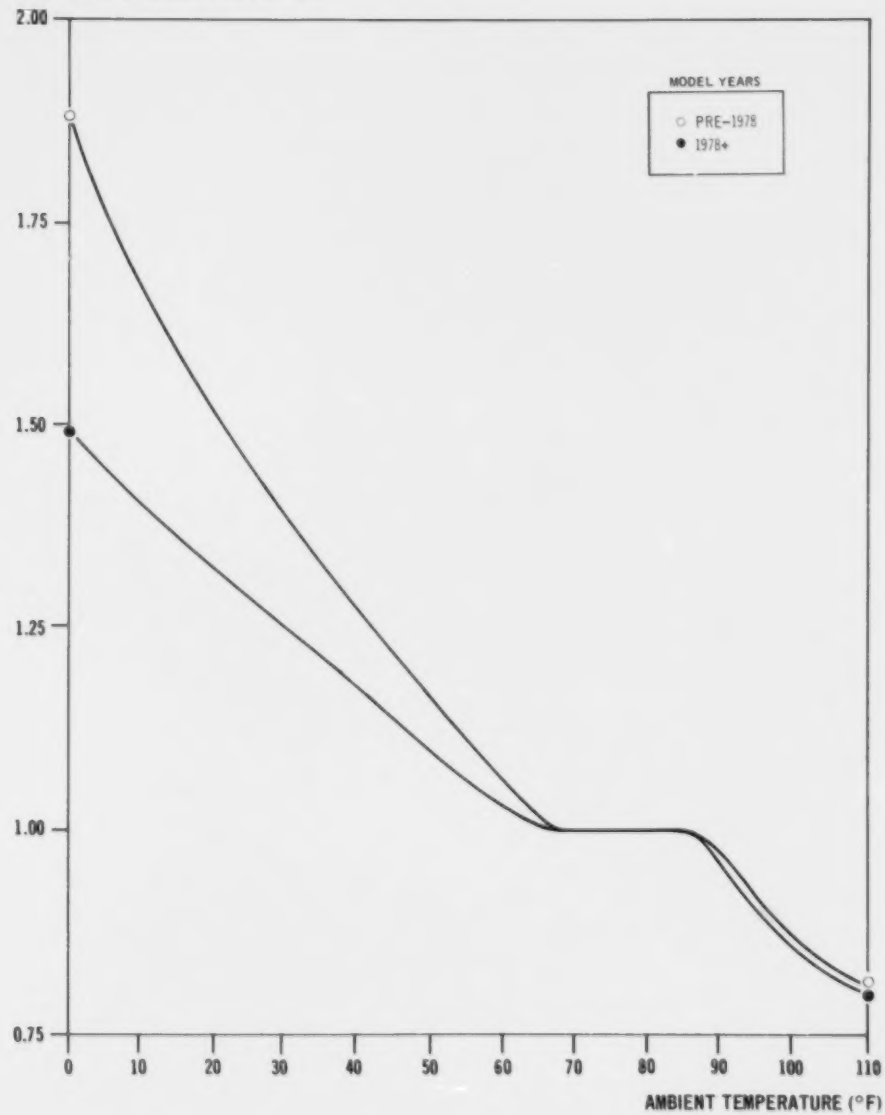
FIGURE 77

MOTORCYCLES

BAG 2 - OXIDES OF NITROGEN

LOW ALTITUDE 49-STATE

TEMPERATURE CORRECTION FACTORS



TEMPERATURE CORRECTION FACTORS

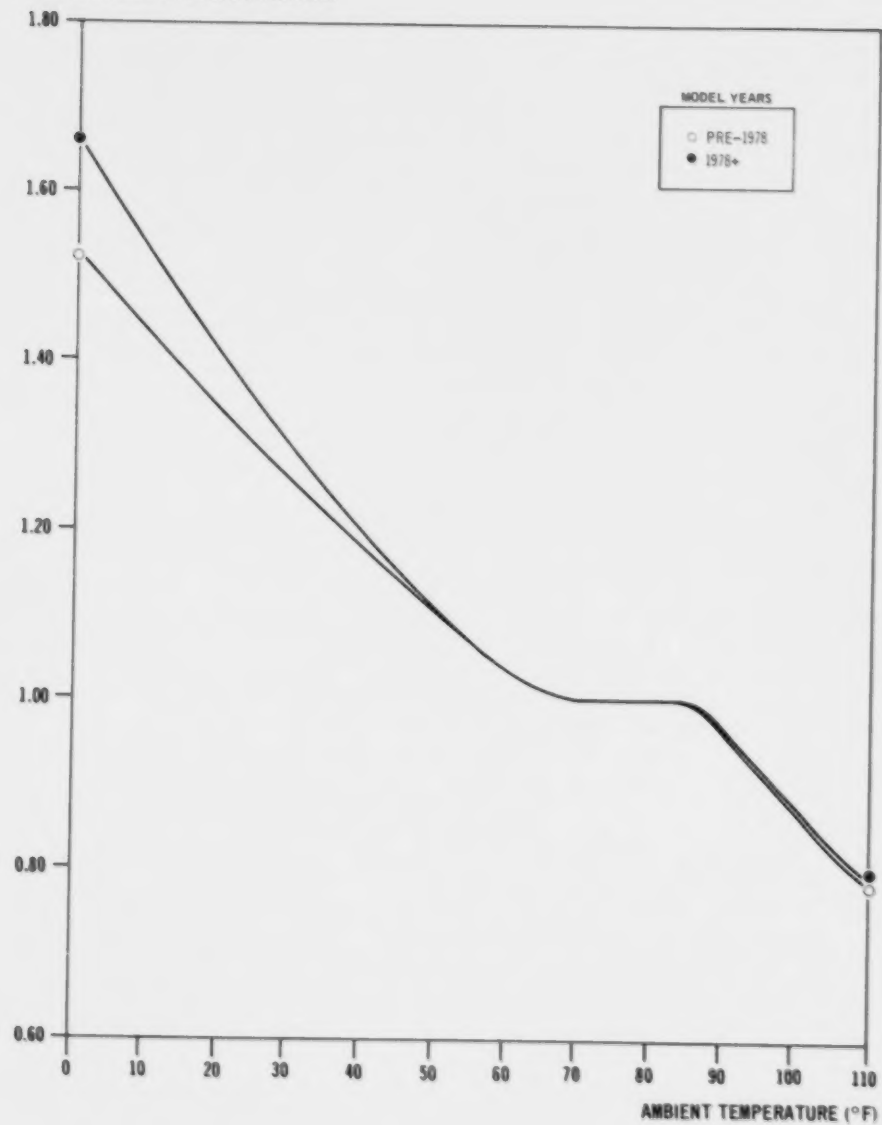
FIGURE 78

**MOTORCYCLES**

**BAG 3 - OXIDES OF NITROGEN**

LOW ALTITUDE 49-STATE

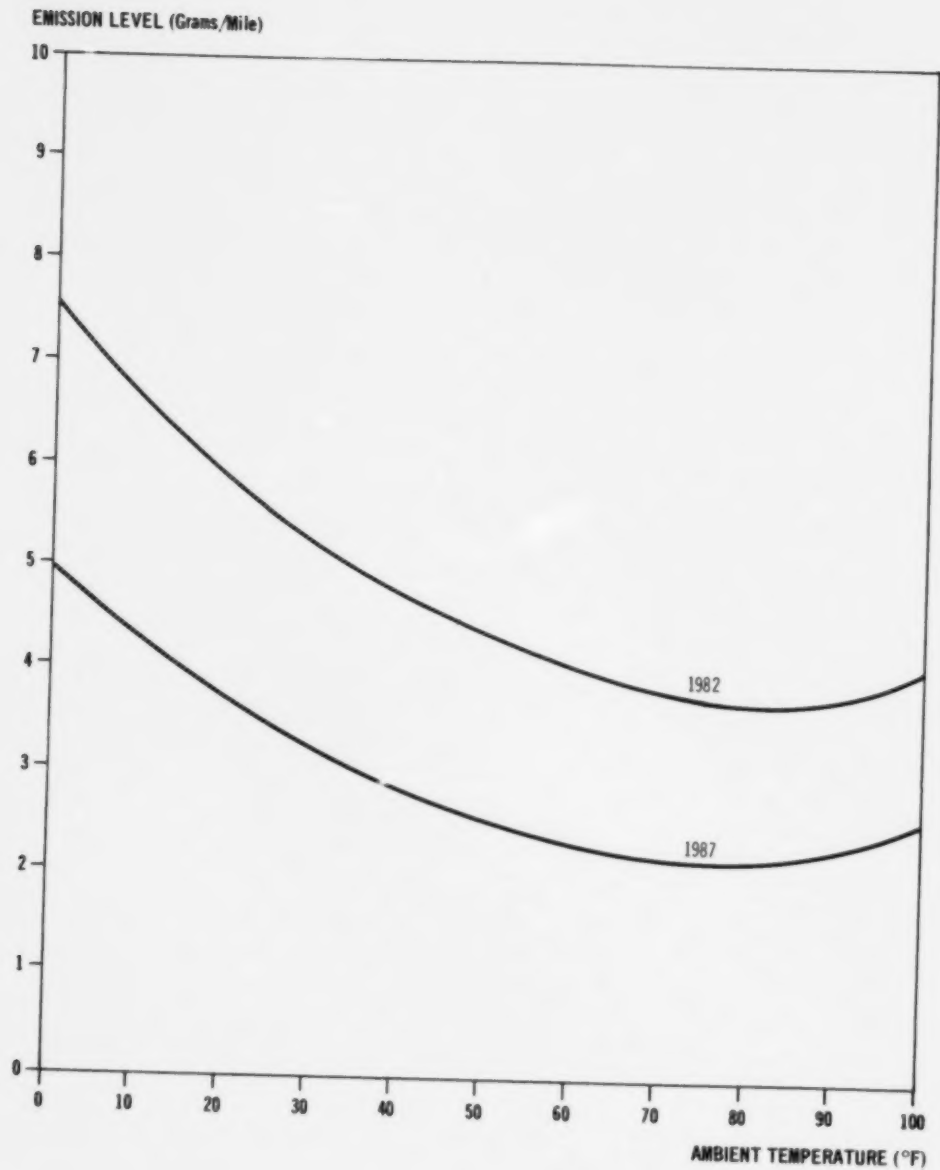
TEMPERATURE CORRECTION FACTORS



MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 79  
LIGHT DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS

AMBIENT TEMPERATURE/CALENDAR YEAR



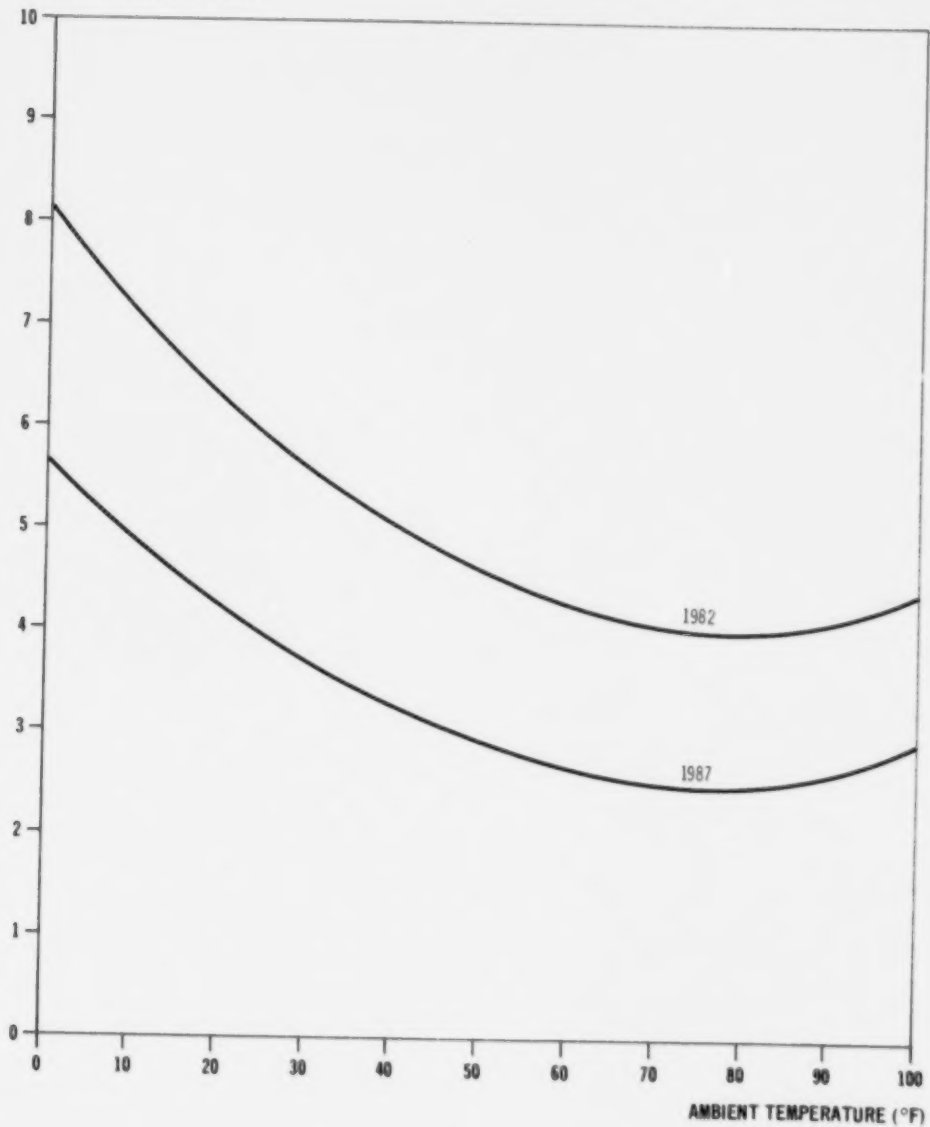
MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 80

LIGHT DUTY GASOLINE-POWERED TRUCKS I  
HYDROCARBONS

AMBIENT TEMPERATURE/CALENDAR YEAR

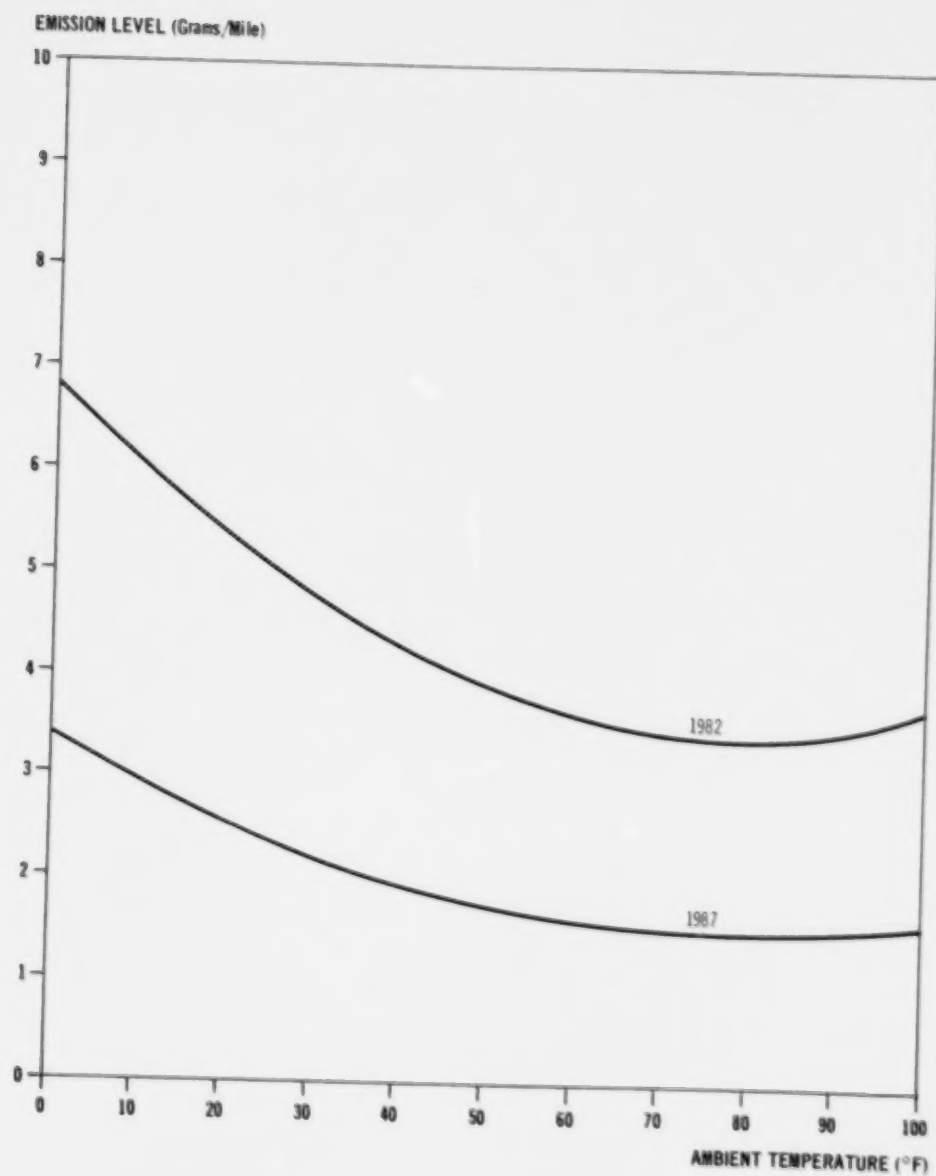
EMISSION LEVEL (Grams/Mile)



MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 81  
LIGHT DUTY GASOLINE-POWERED TRUCKS II  
HYDROCARBONS

AMBIENT TEMPERATURE/CALENDAR YEAR

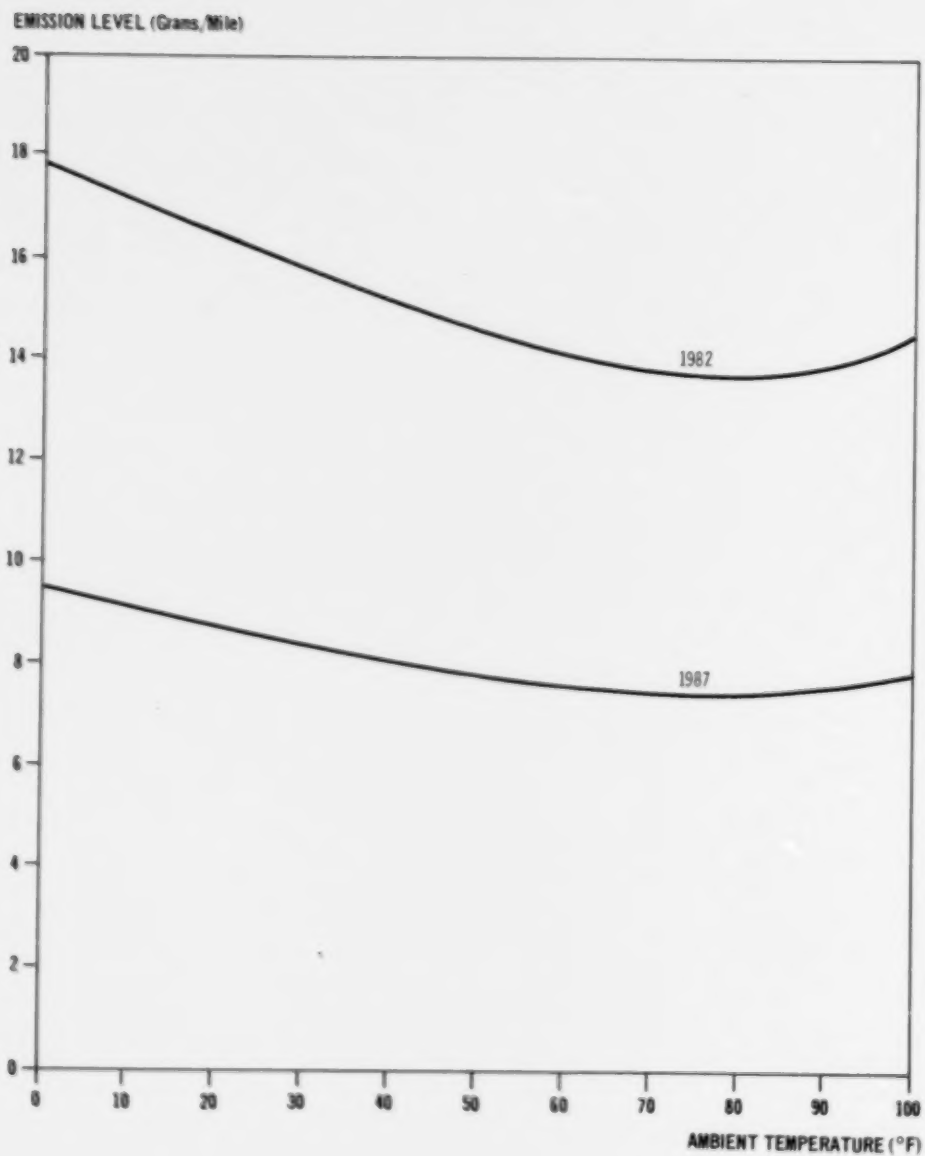


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 82

HEAVY DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS

AMBIENT TEMPERATURE/CALENDAR YEAR

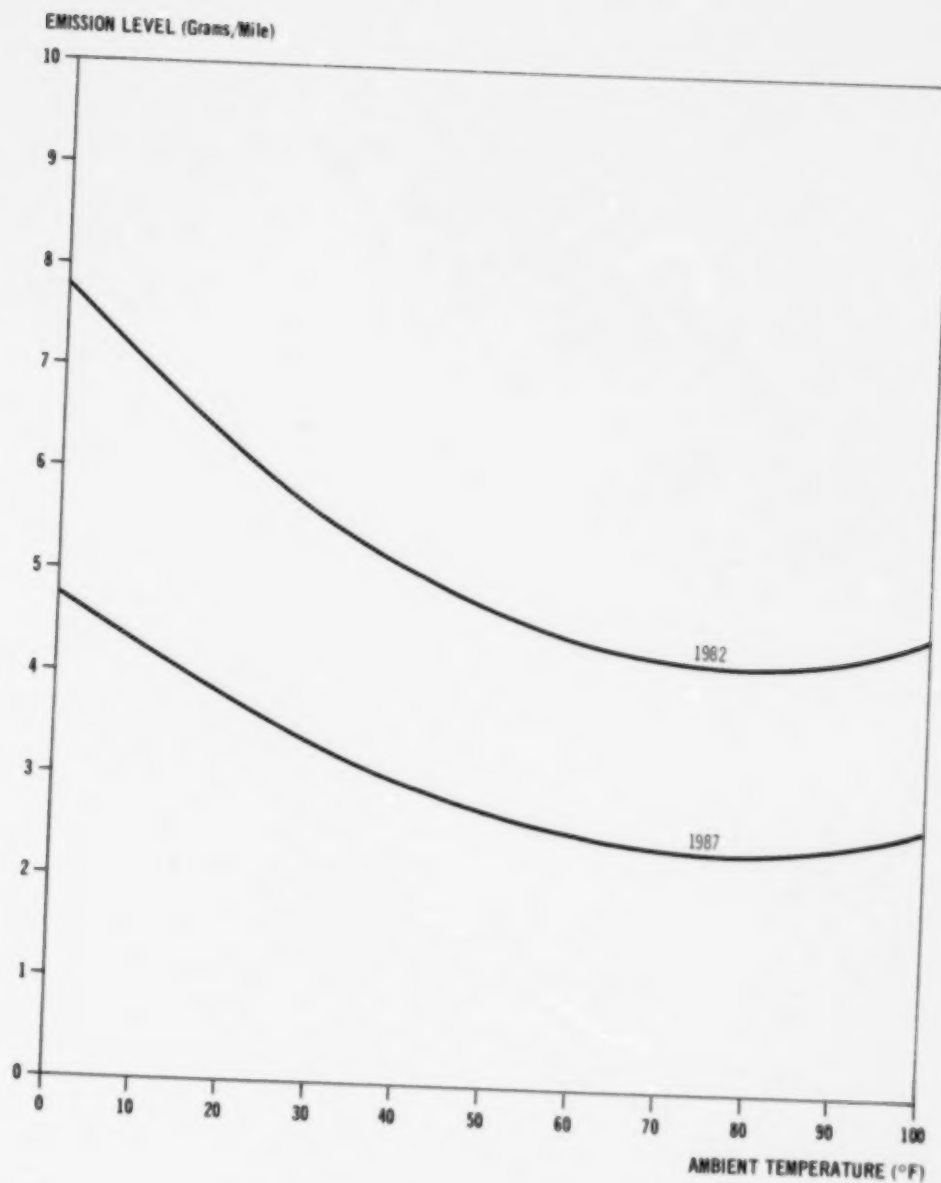


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 83

ALL VEHICLES COMBINED  
HYDROCARBONS

AMBIENT TEMPERATURE/CALENDAR YEAR

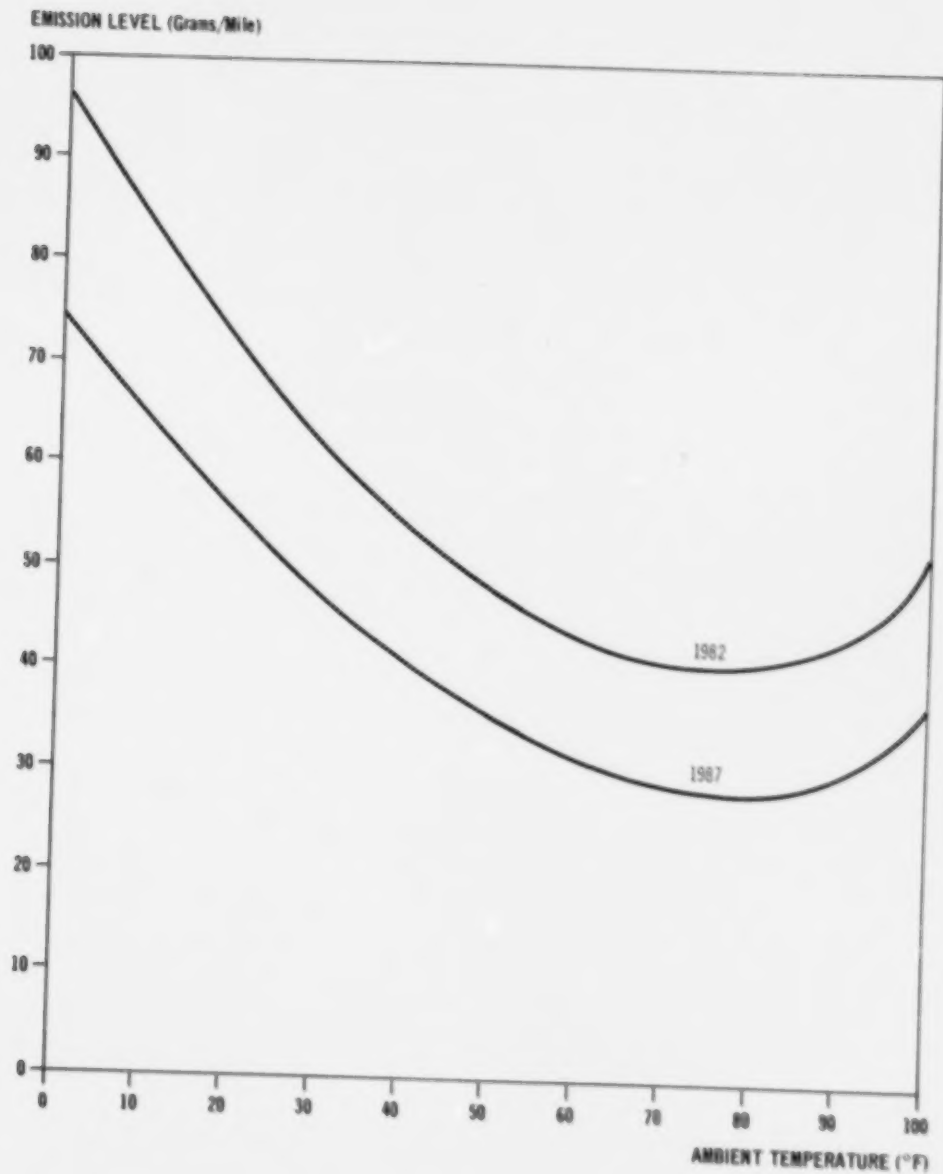


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 84

LIGHT DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE

AMBIENT TEMPERATURE/CALENDAR YEAR



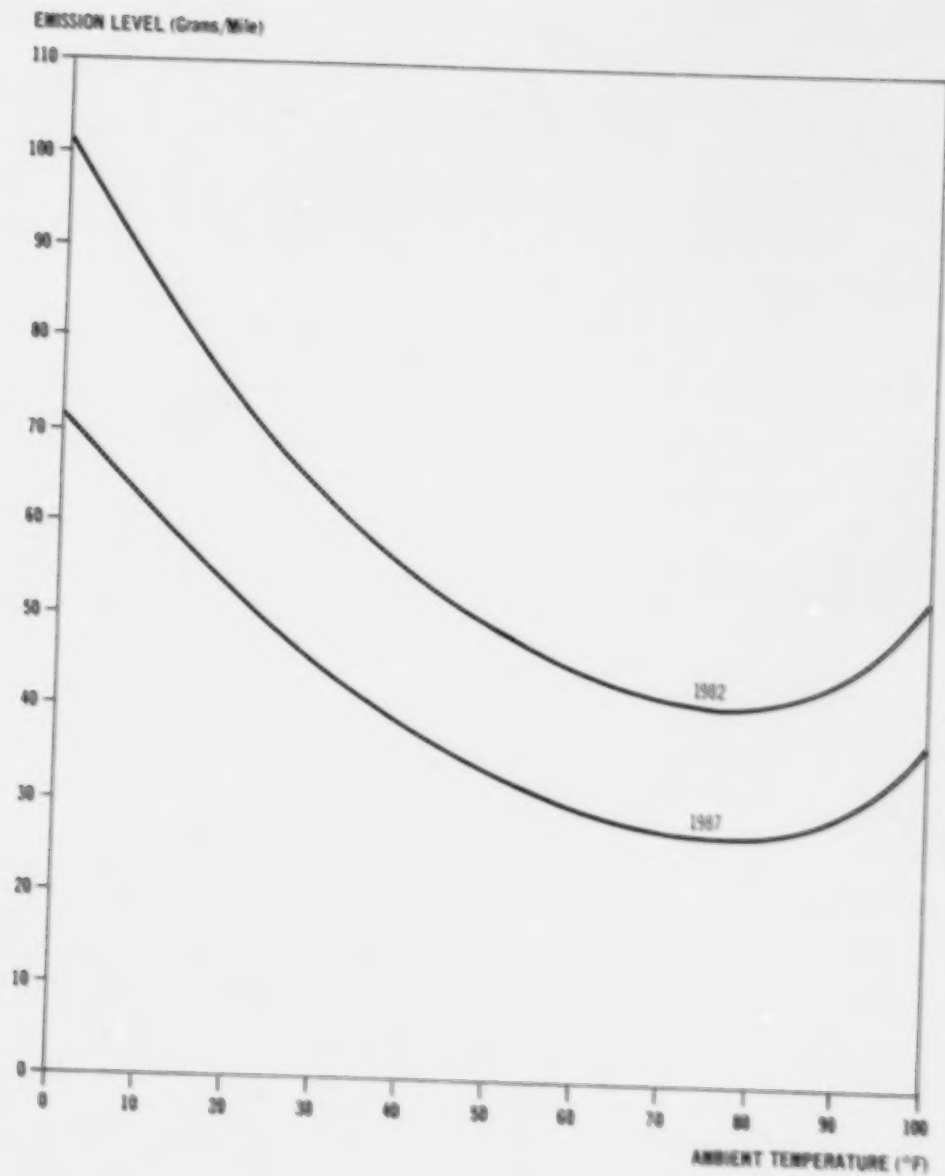


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 85

LIGHT DUTY GASOLINE-POWERED TRUCKS I  
CARBON MONOXIDE

AMBIENT TEMPERATURE/CALENDAR YEAR

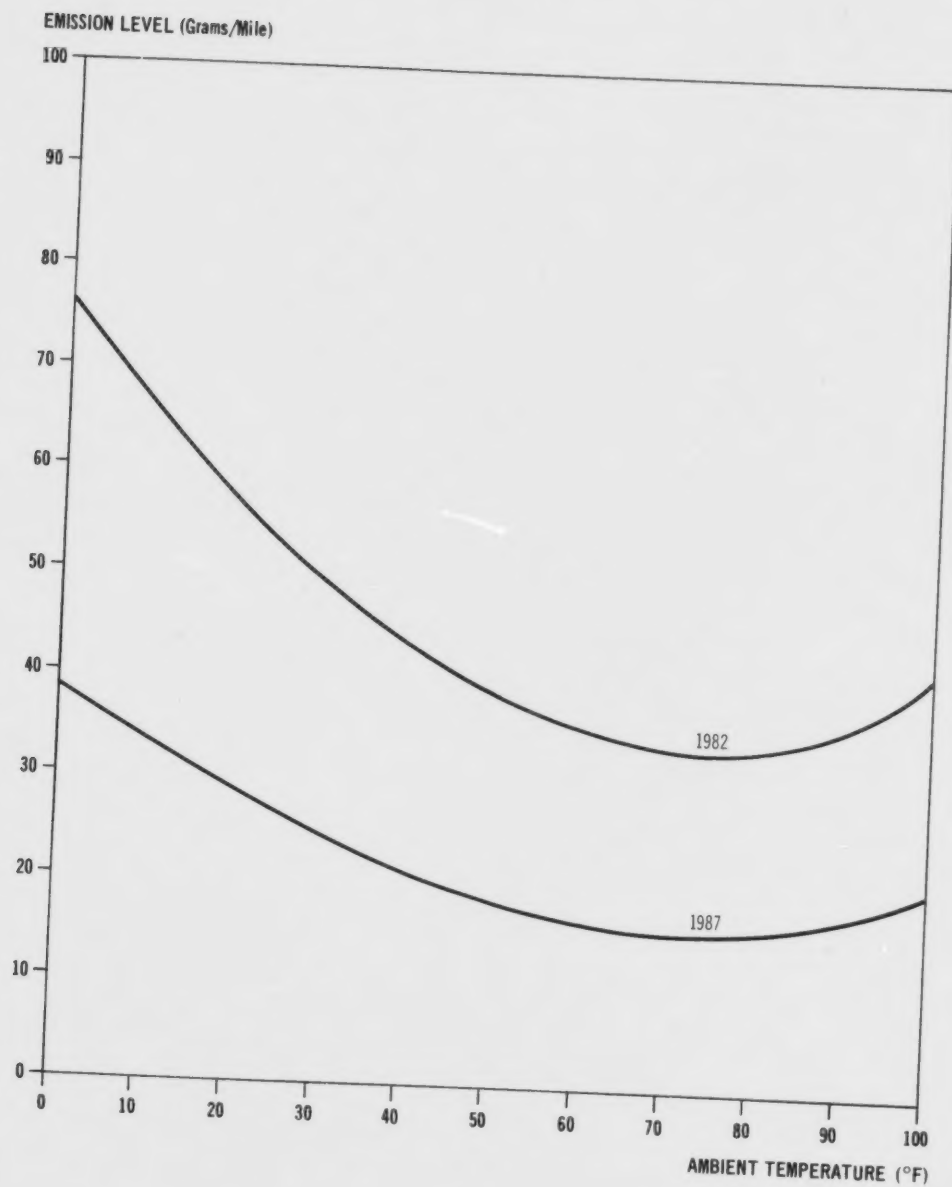


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 86

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
CARBON MONOXIDE

AMBIENT TEMPERATURE/CALENDAR YEAR

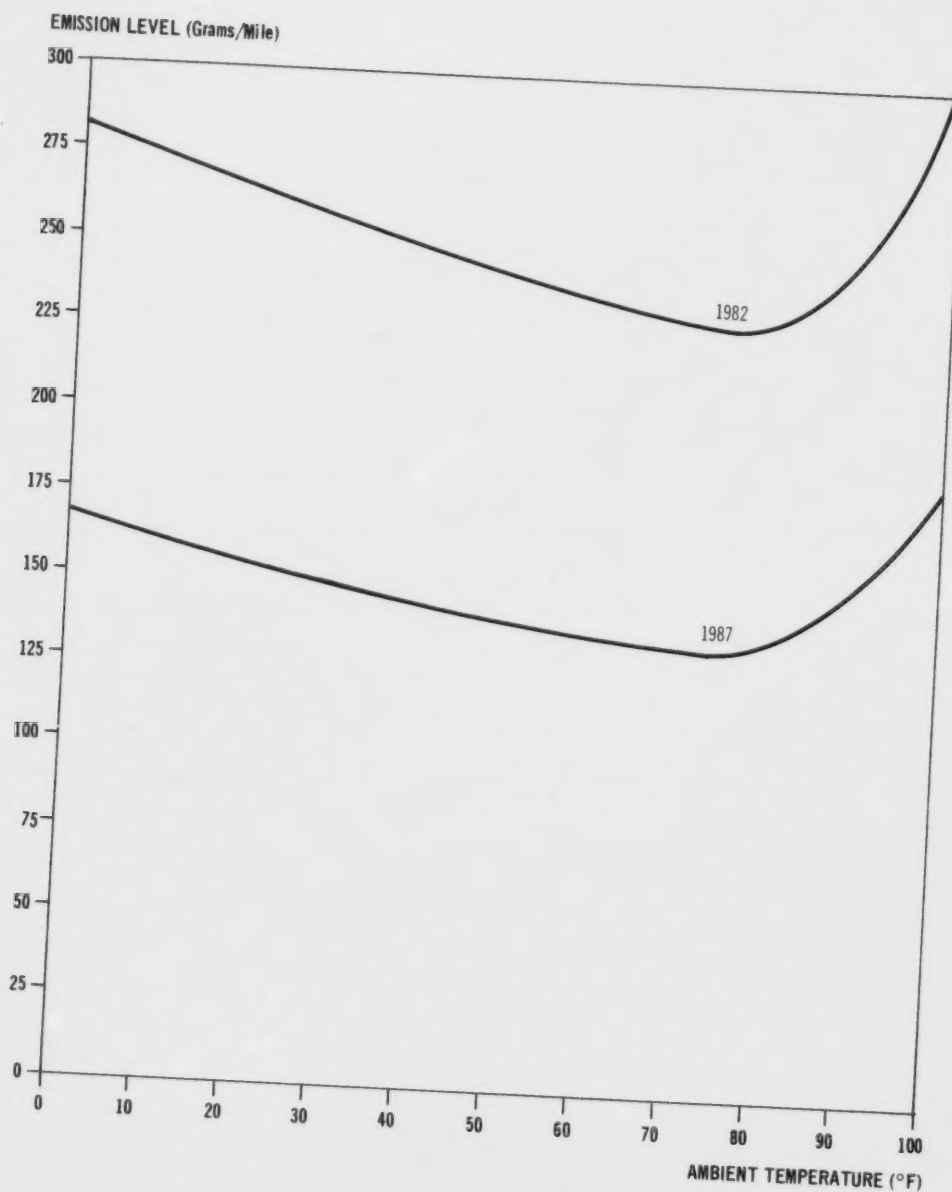


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 87

HEAVY DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE

AMBIENT TEMPERATURE/CALENDAR YEAR

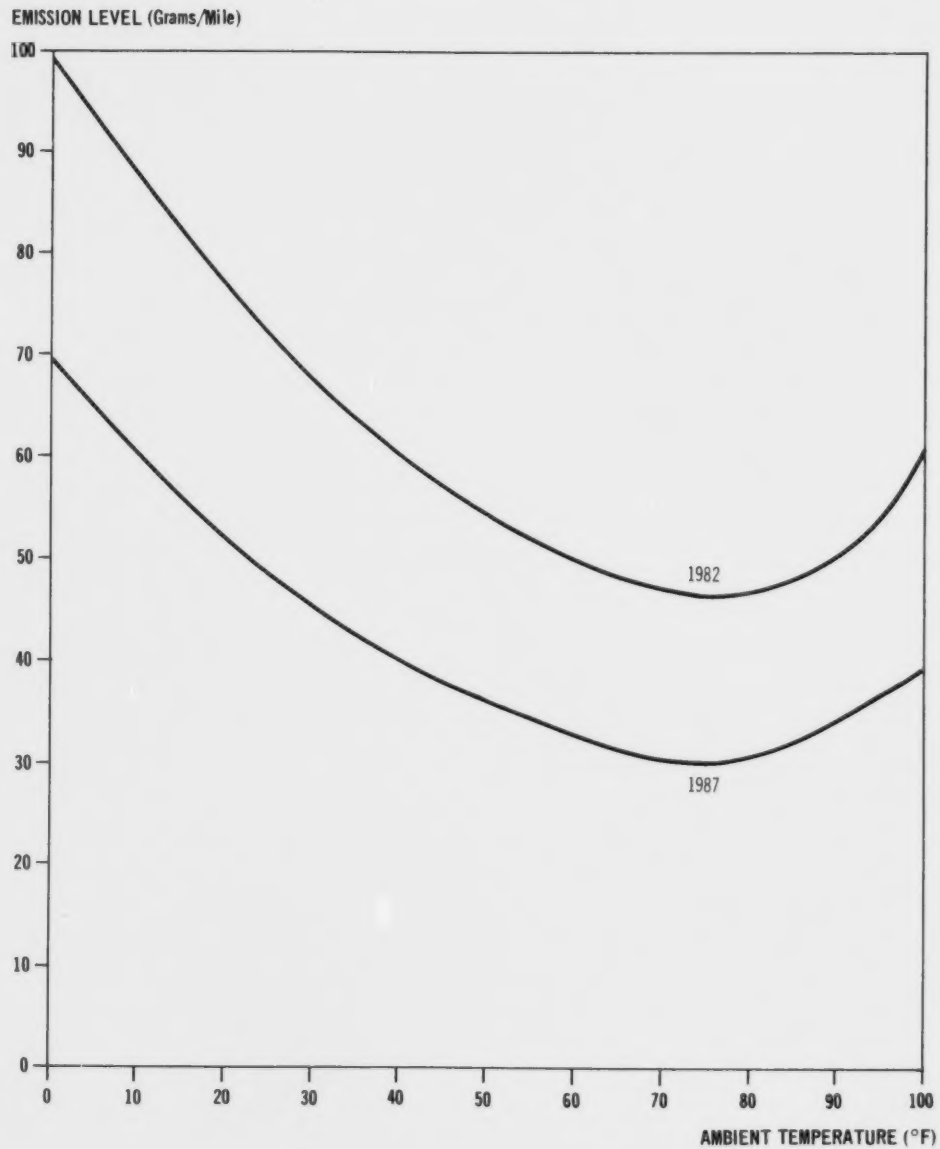


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 88

**ALL VEHICLES COMBINED  
CARBON MONOXIDE**

AMBIENT TEMPERATURE/CALENDAR YEAR

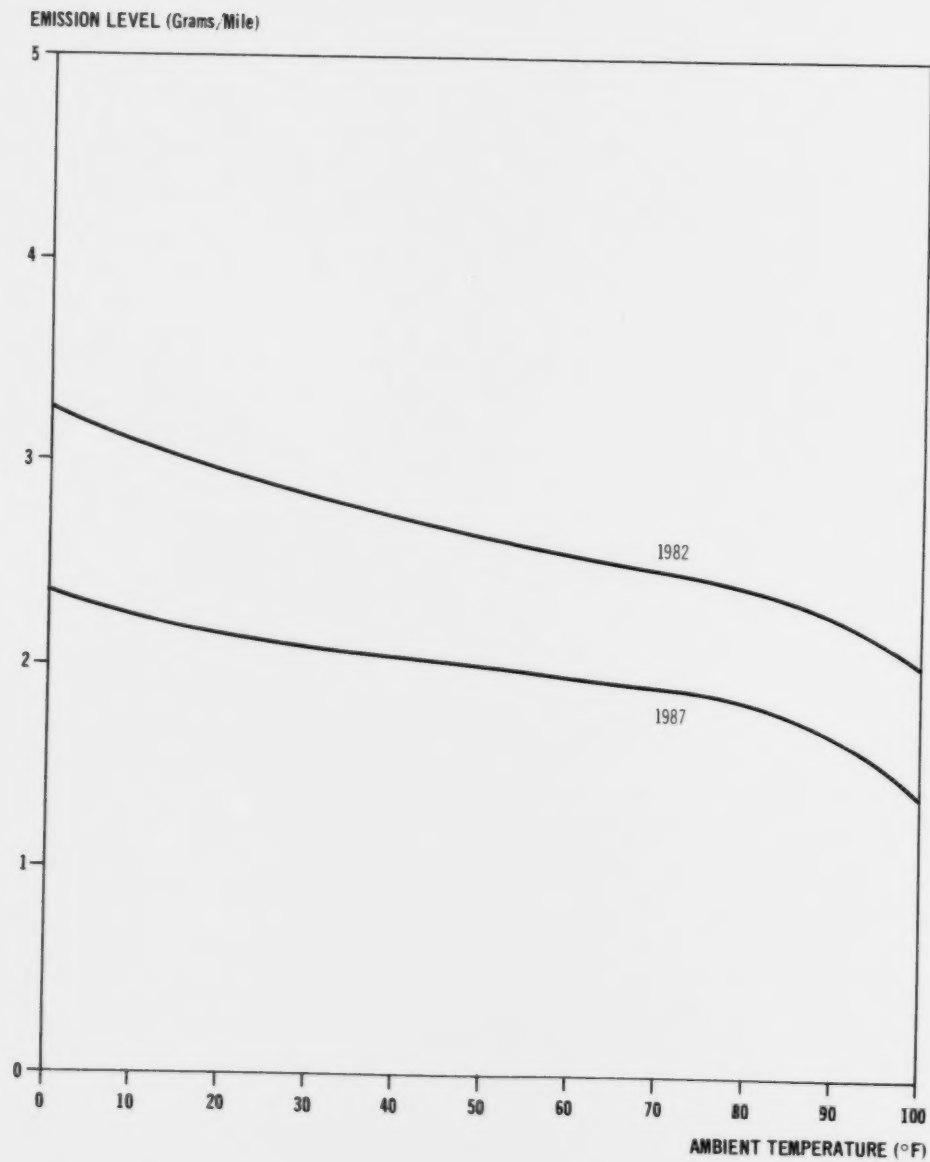


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 89

**LIGHT DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN**

AMBIENT TEMPERATURE/CALENDAR YEAR

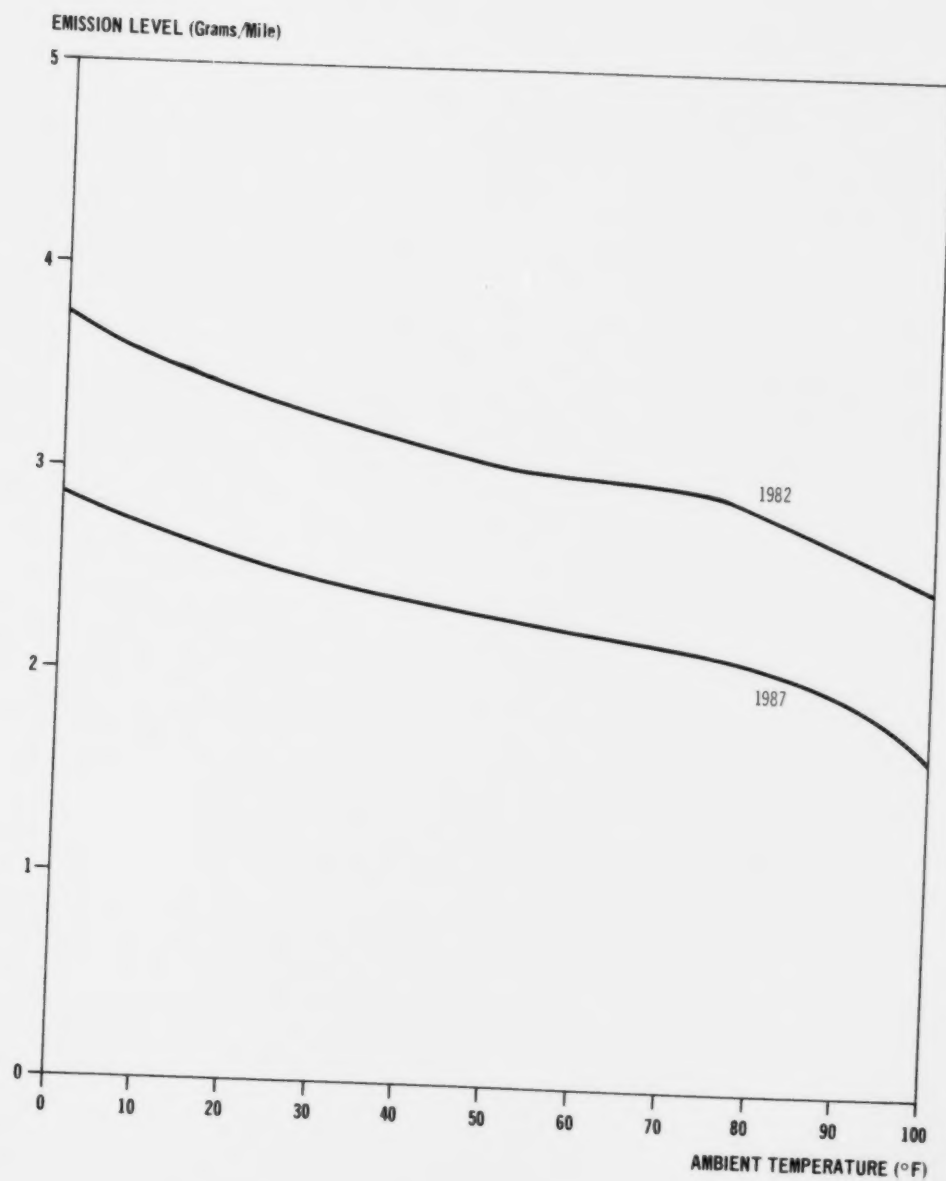


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 90

**LIGHT DUTY GASOLINE-POWERED TRUCKS I**  
**OXIDES OF NITROGEN**

AMBIENT TEMPERATURE / CALENDAR YEAR

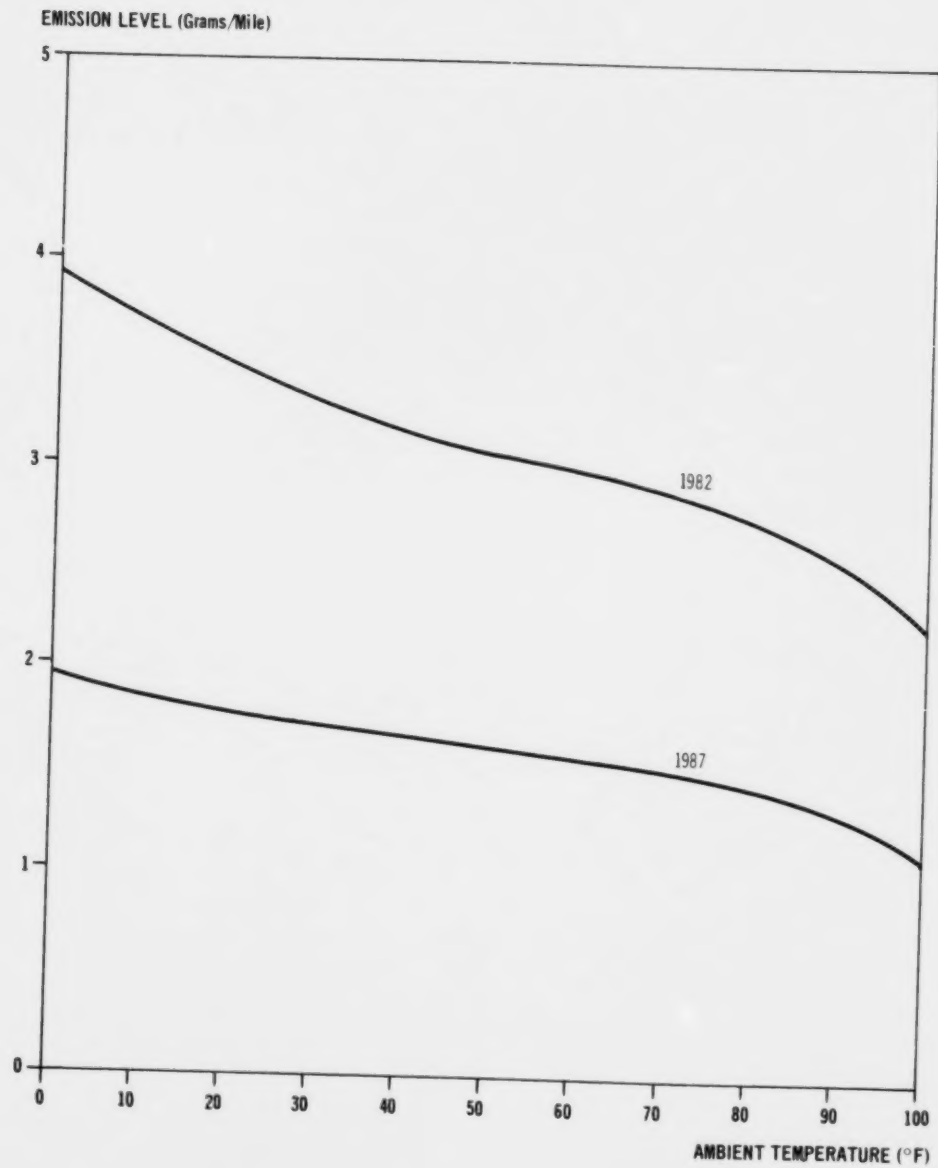


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 91

**LIGHT DUTY GASOLINE-POWERED TRUCKS II**  
**OXIDES OF NITROGEN**

AMBIENT TEMPERATURE / CALENDAR YEAR

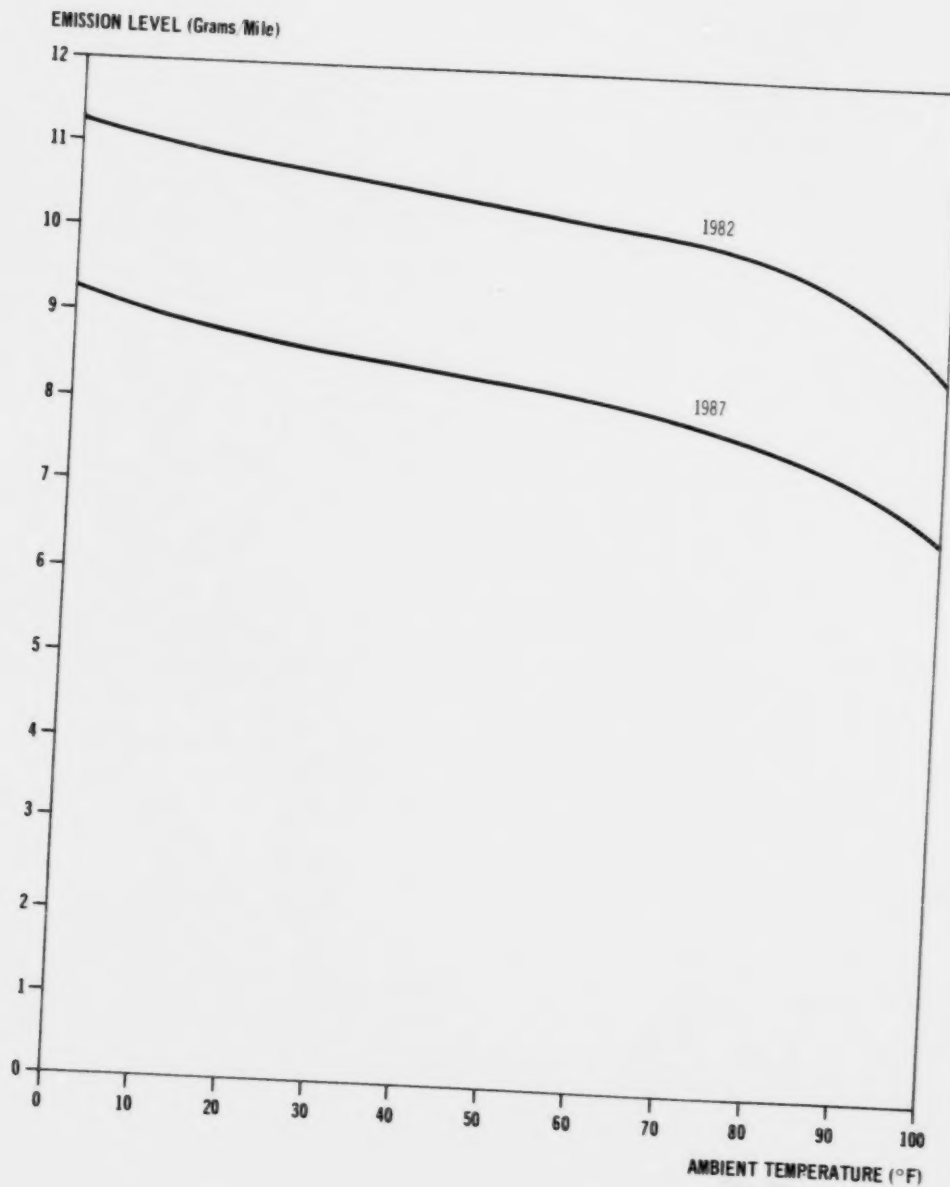


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 92

HEAVY DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN

AMBIENT TEMPERATURE CALENDAR YEAR



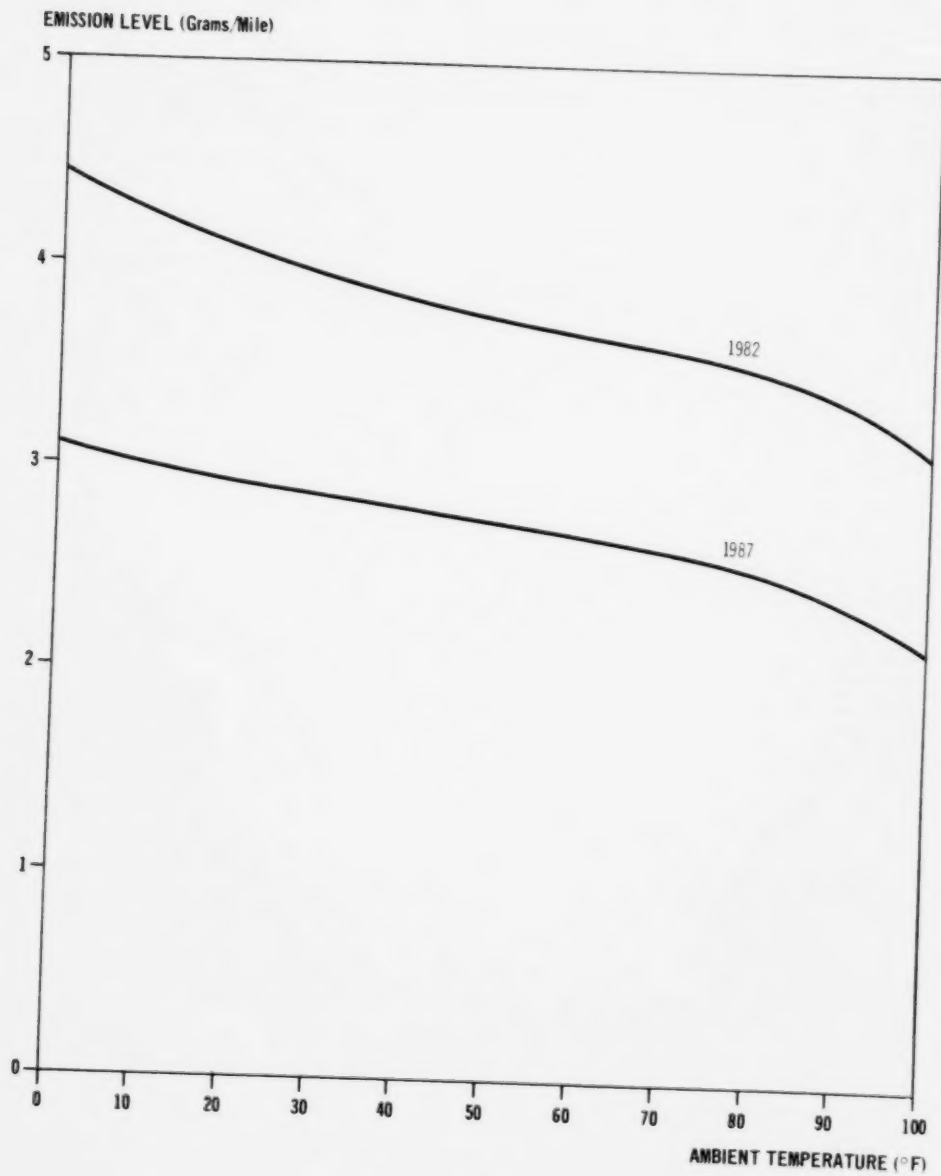


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 93

**ALL VEHICLES COMBINED**  
**OXIDES OF NITROGEN**

AMBIENT TEMPERATURE, CALENDAR YEAR

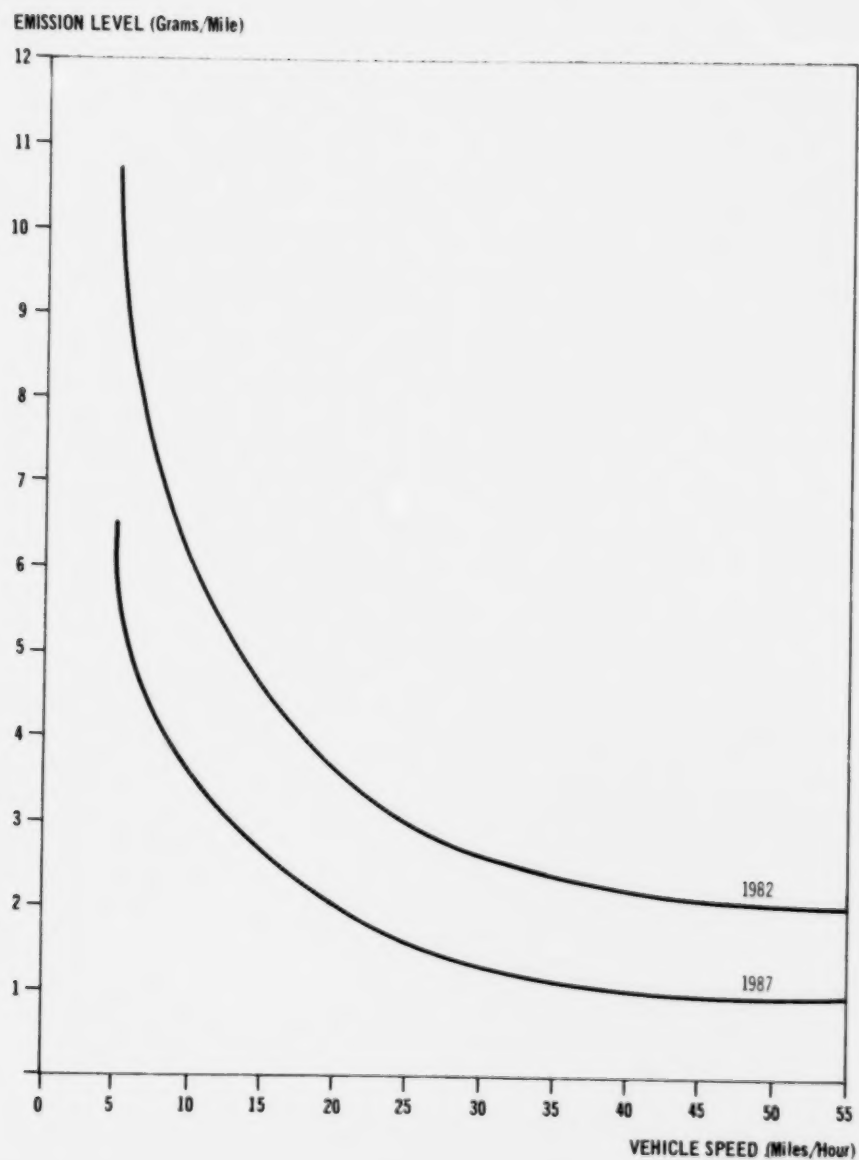


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 94

**LIGHT DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS**

VEHICLE SPEED / CALENDAR YEAR

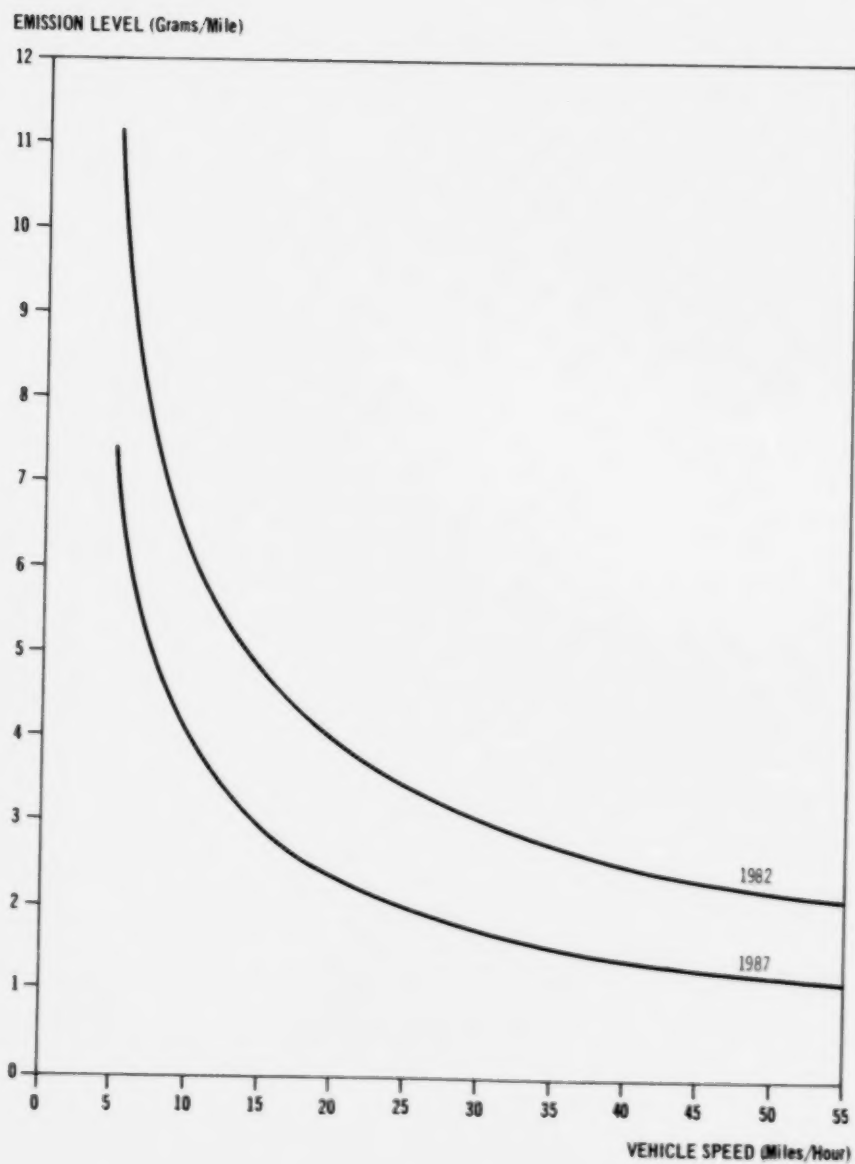


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 95

**LIGHT DUTY GASOLINE-POWERED TRUCKS I  
HYDROCARBONS**

VEHICLE SPEED CALENDAR YEAR

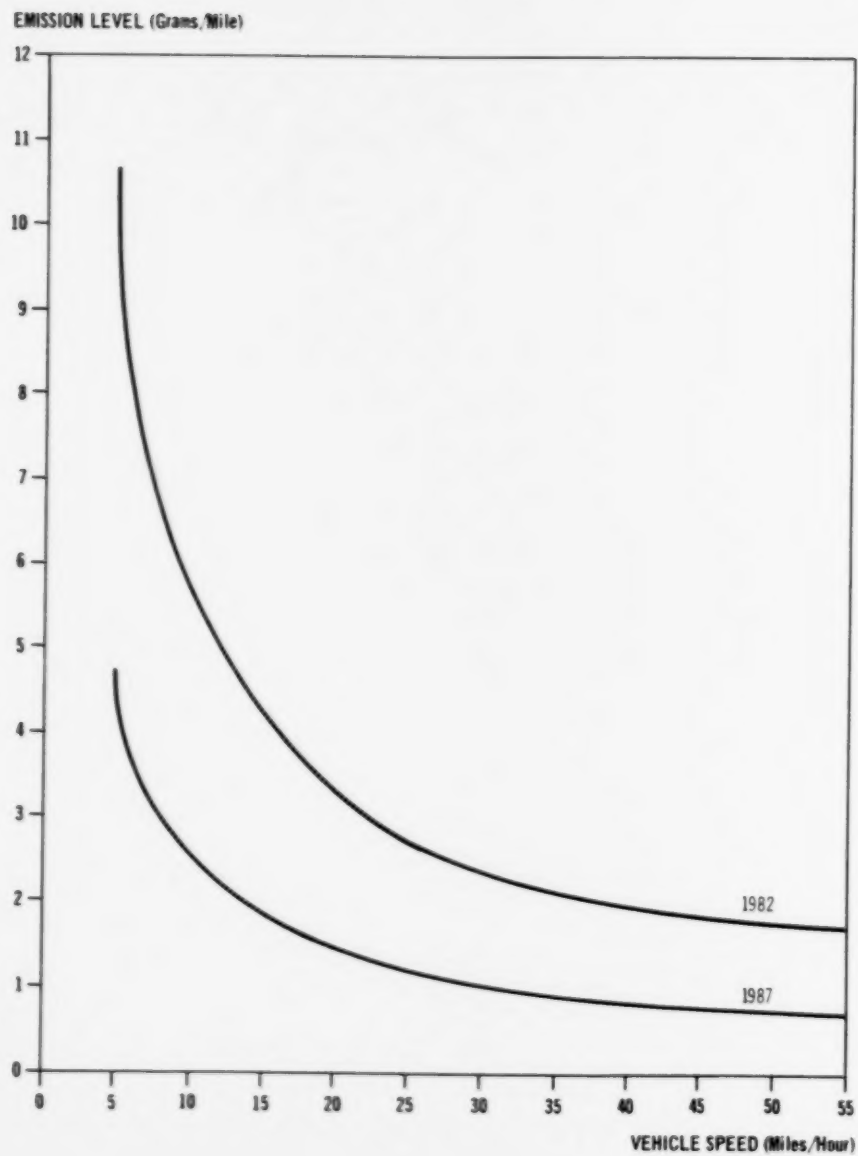


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 96

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
HYDROCARBONS

VEHICLE SPEED CALENDAR YEAR

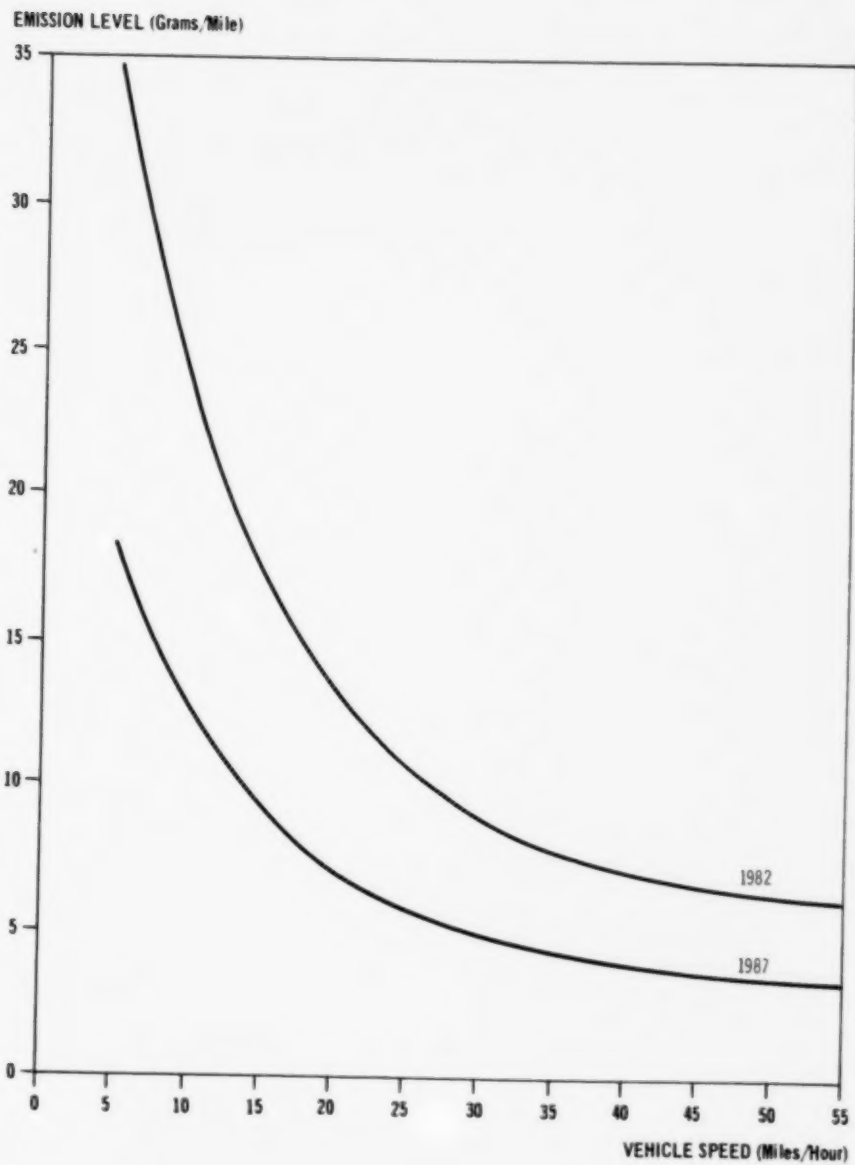


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 97

HEAVY DUTY GASOLINE-POWERED VEHICLES  
HYDROCARBONS

VEHICLE SPEED: CALENDAR YEAR

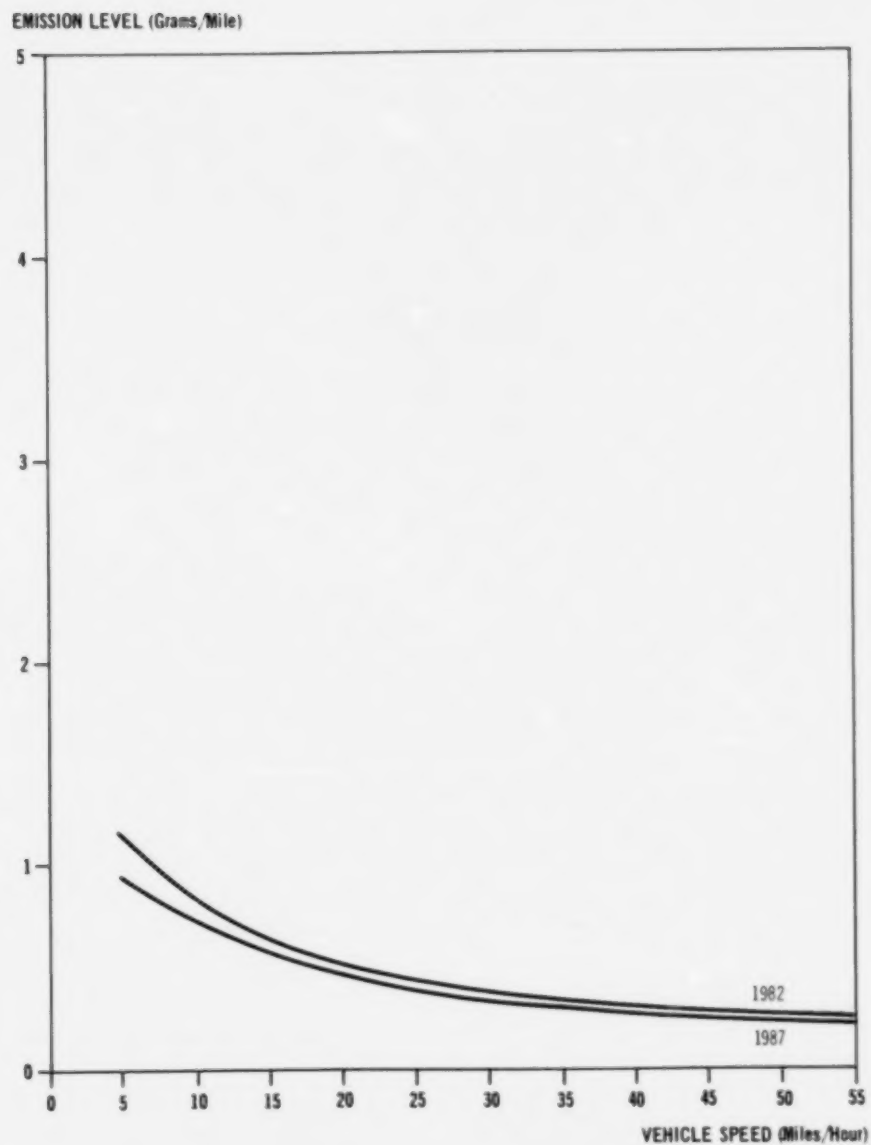


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 98

**LIGHT DUTY DIESEL-POWERED VEHICLES  
HYDROCARBONS**

VEHICLE SPEED / CALENDAR YEAR

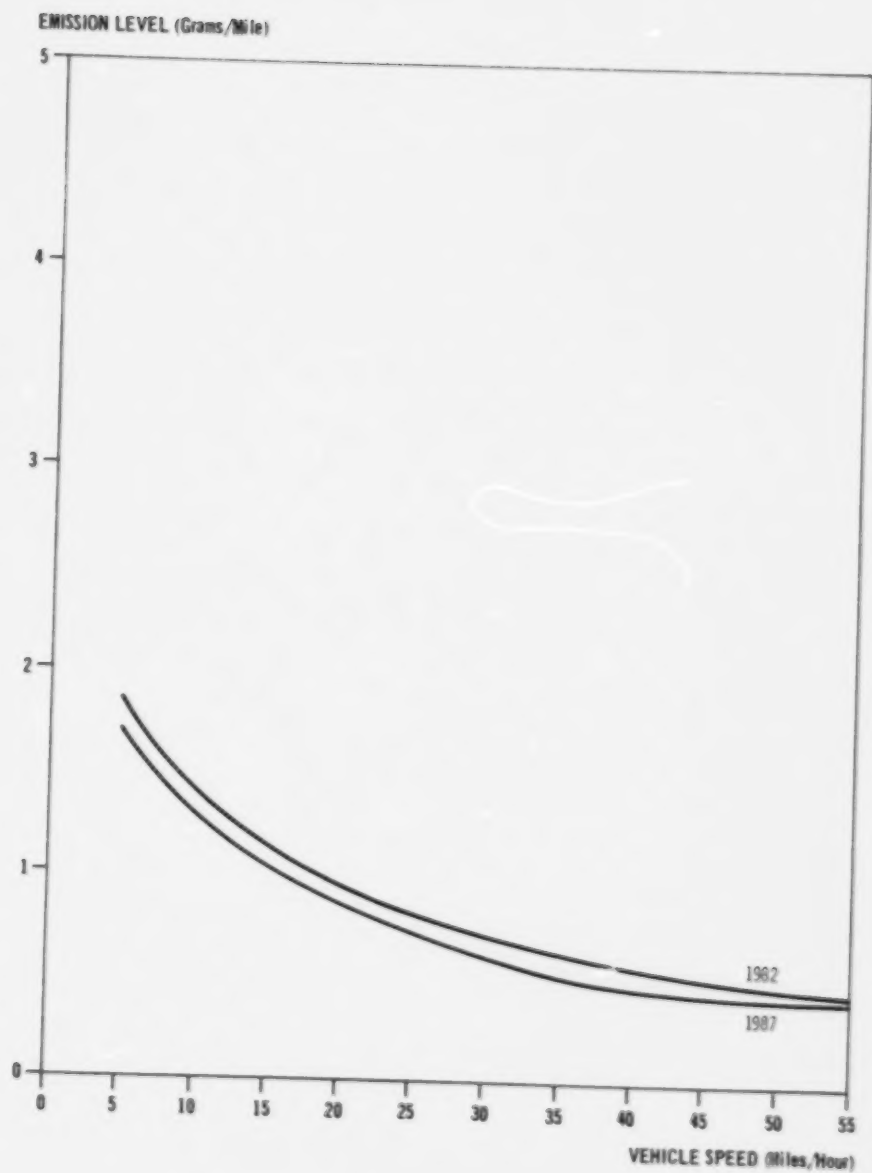


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 99

**LIGHT DUTY DIESEL-POWERED TRUCKS  
HYDROCARBONS**

VEHICLE SPEED CALENDAR YEAR

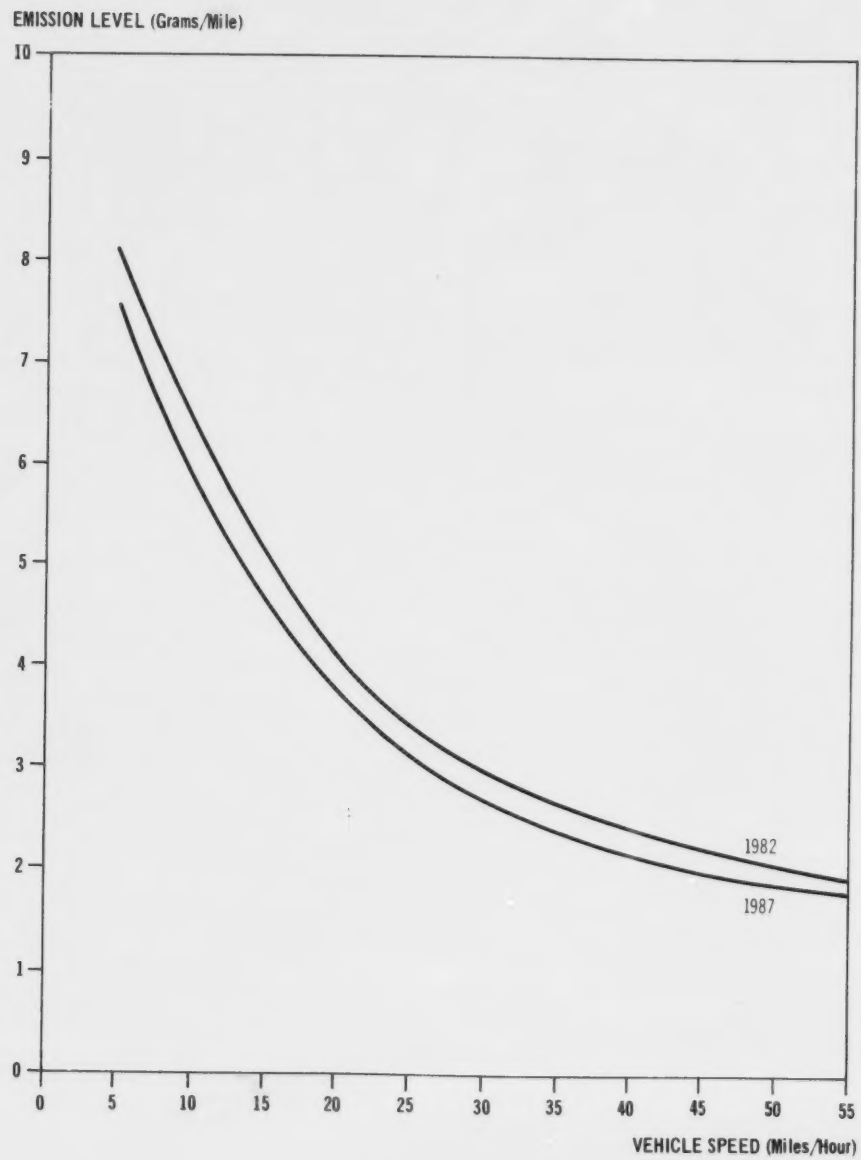


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 100

HEAVY DUTY DIESEL-POWERED VEHICLES  
HYDROCARBONS

VEHICLE SPEED CALENDAR YEAR



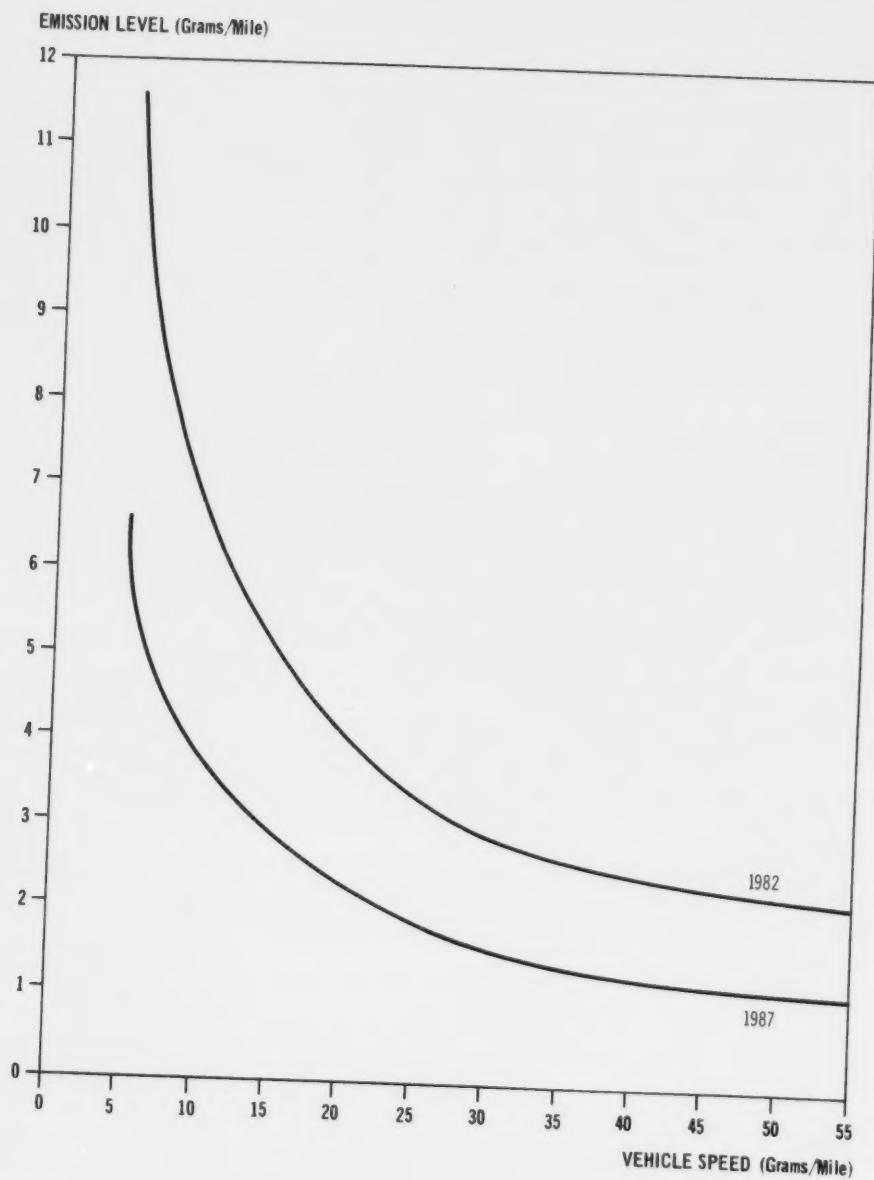


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 101

**ALL VEHICLES COMBINED  
HYDROCARBONS**

VEHICLE SPEED 'CALENDAR YEAR

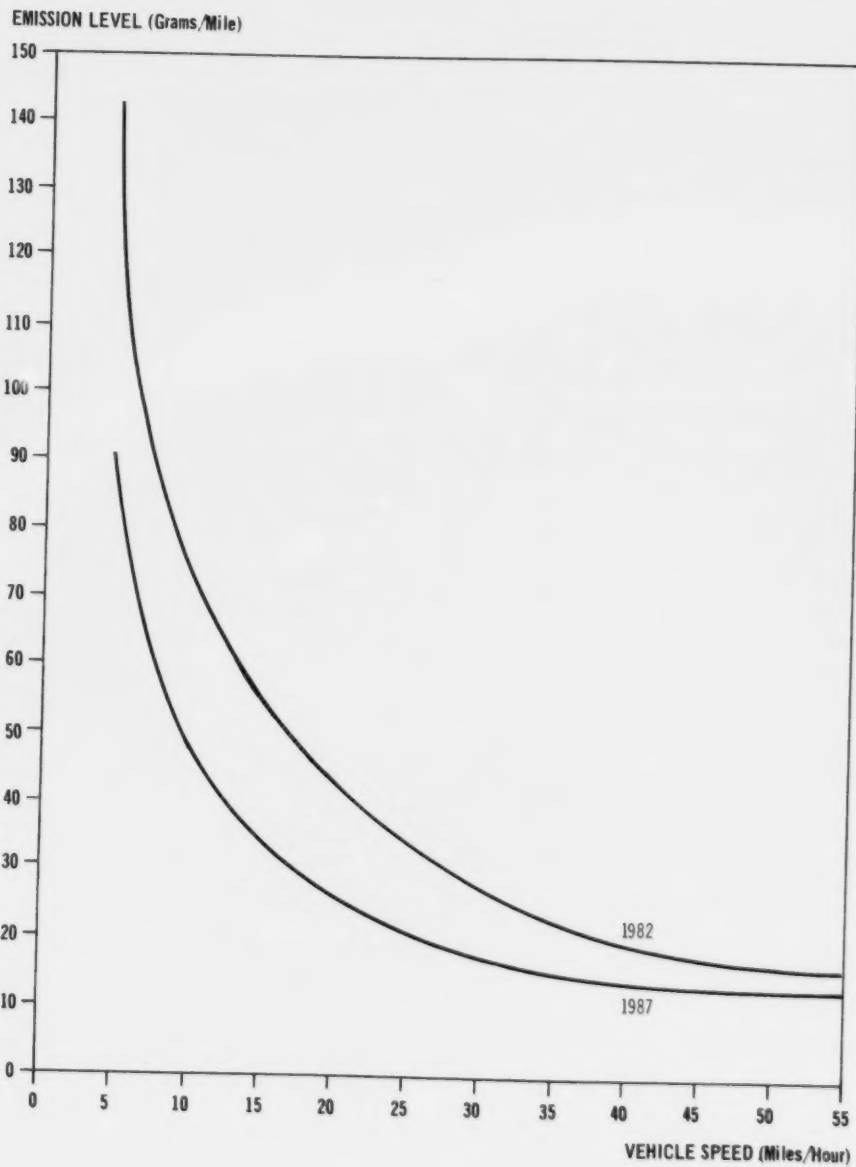


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 102

LIGHT DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE

VEHICLE SPEED / CALENDAR YEAR

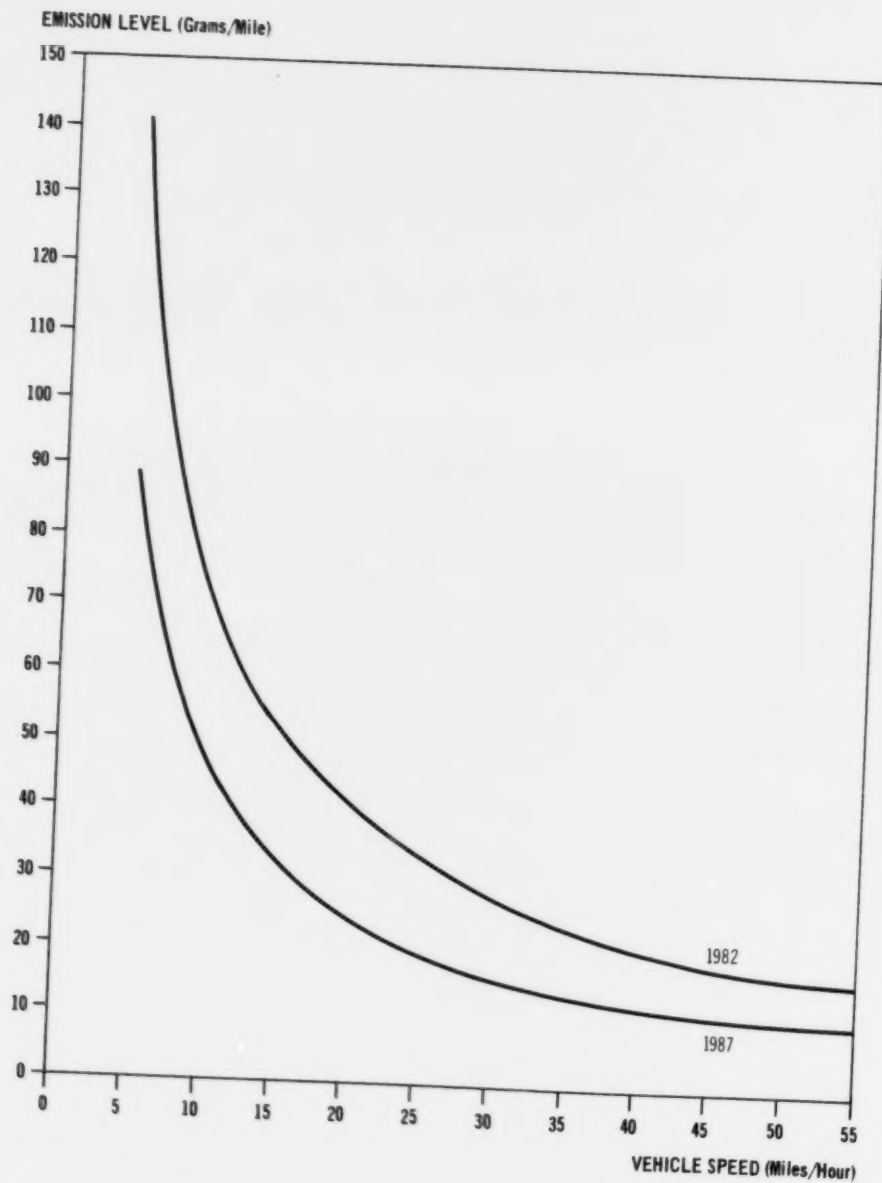


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 103

LIGHT DUTY GASOLINE-POWERED TRUCKS I  
CARBON MONOXIDE

VEHICLE SPEED CALENDAR YEAR

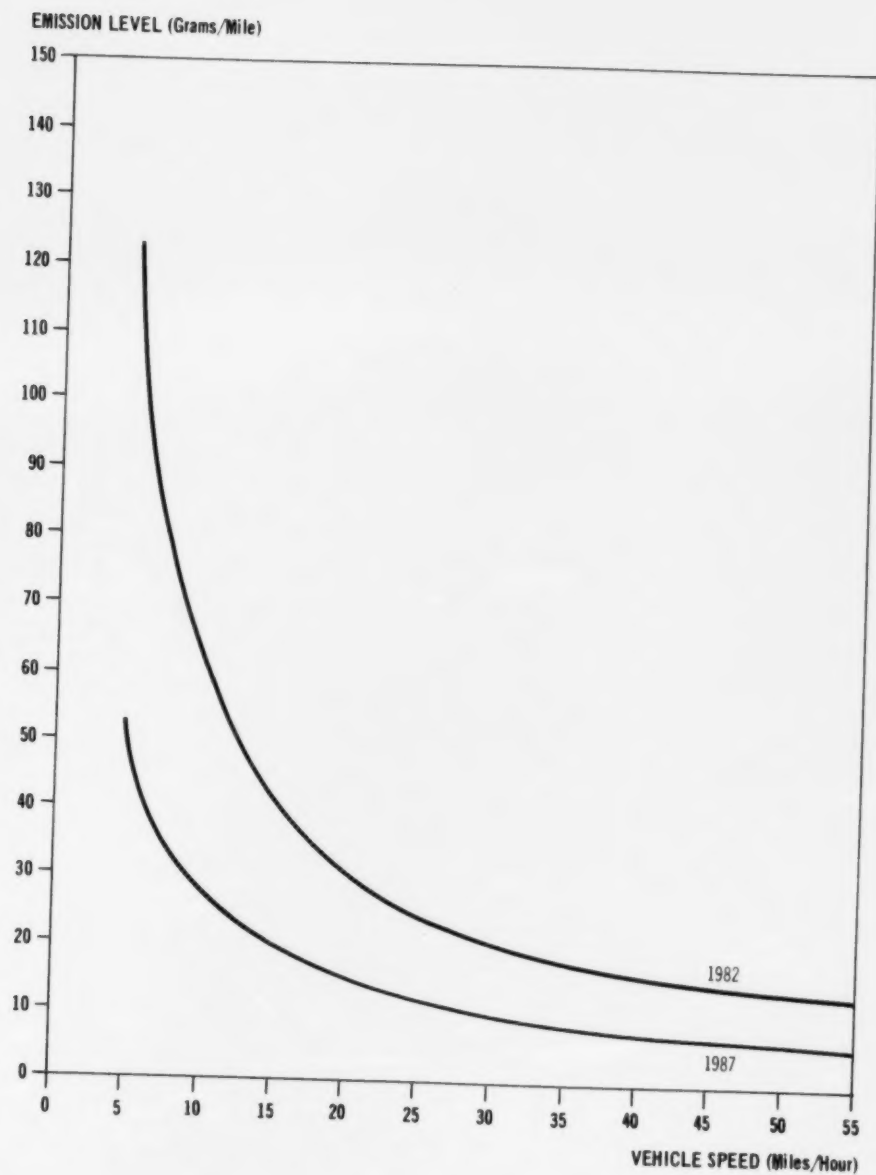


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 104

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
CARBON MONOXIDE

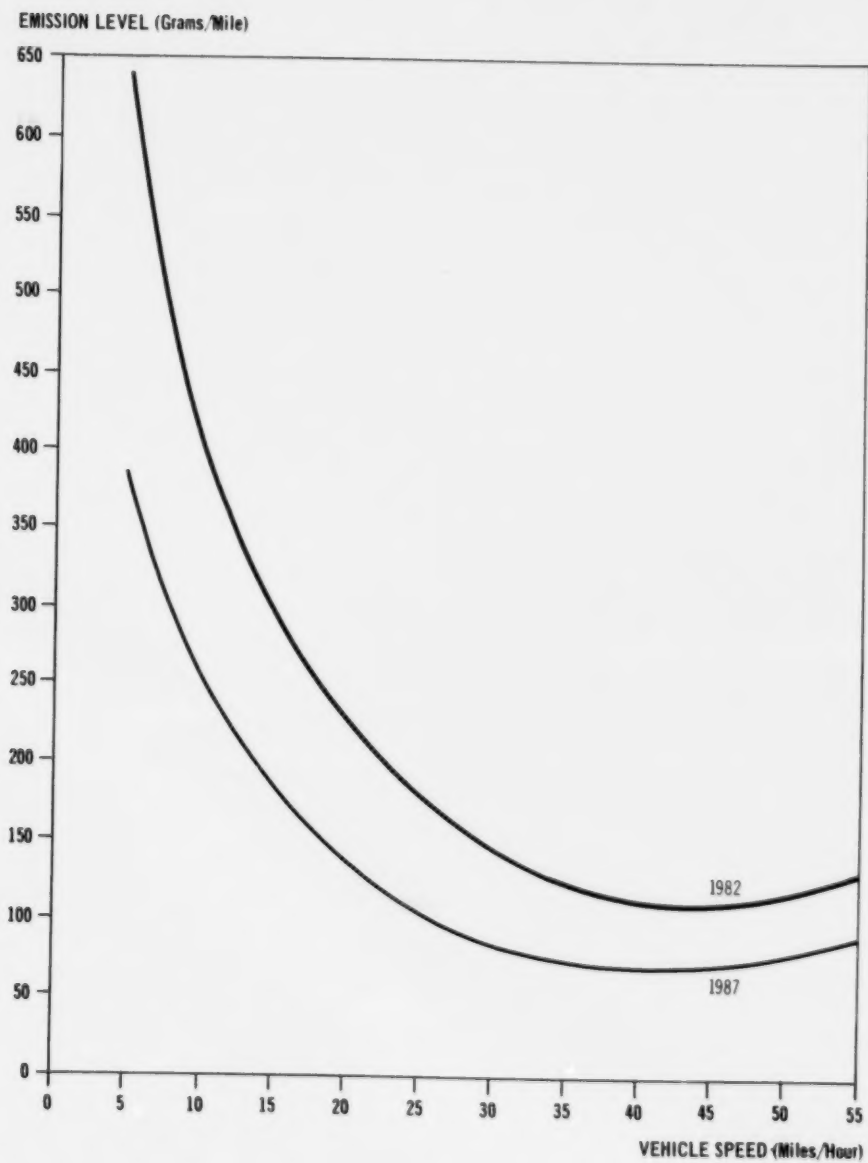
VEHICLE SPEED CALENDAR YEAR



MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 105  
HEAVY DUTY GASOLINE-POWERED VEHICLES  
CARBON MONOXIDE

VEHICLE SPEED CALENDAR YEAR

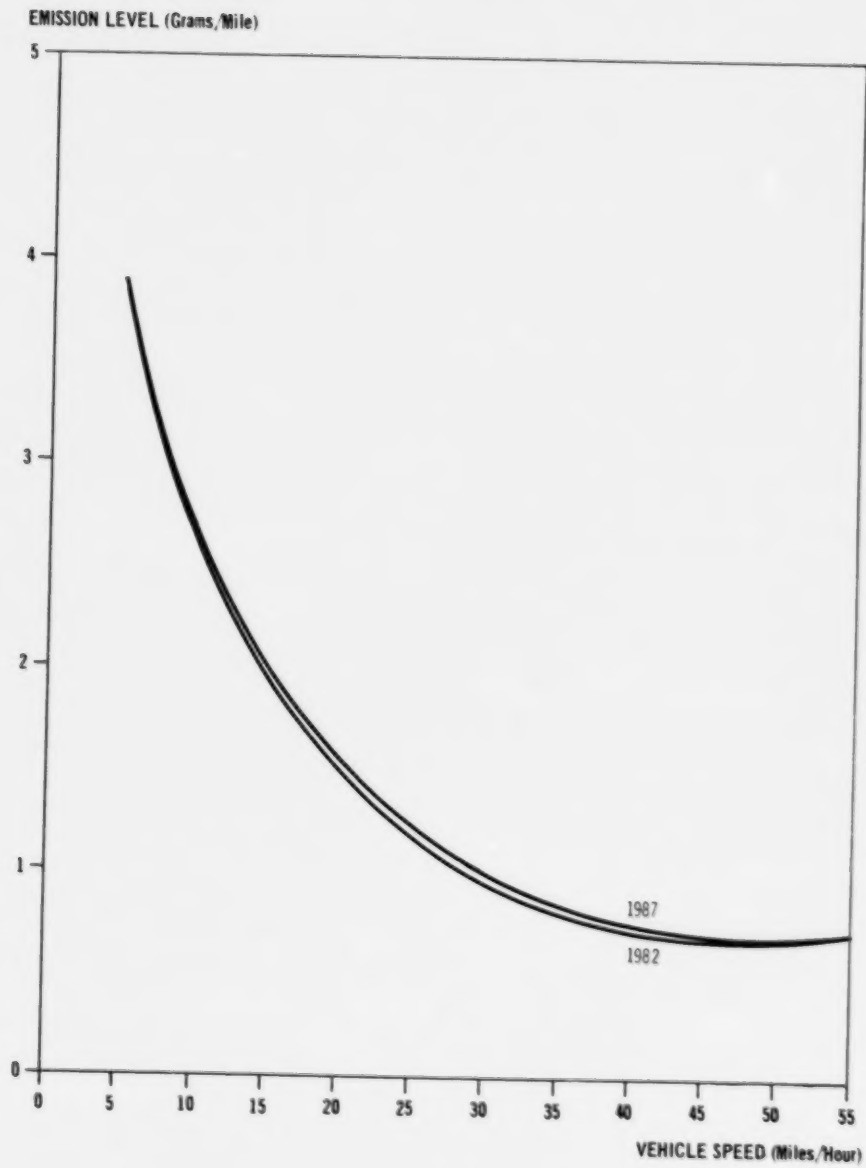


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 106

**LIGHT DUTY DIESEL-POWERED VEHICLES  
CARBON MONOXIDE**

VEHICLE SPEED 'CALENDAR YEAR

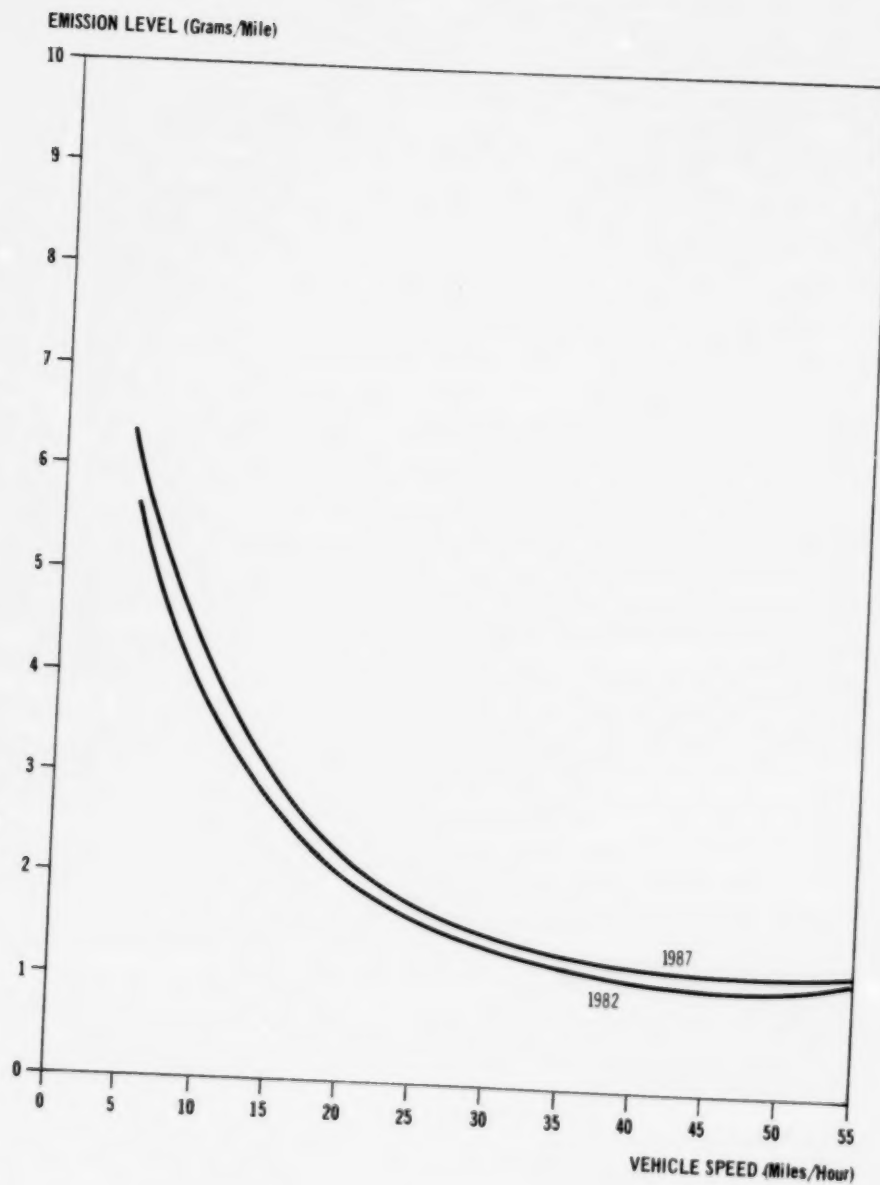


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 107

LIGHT DUTY DIESEL-POWERED TRUCKS  
CARBON MONOXIDE

VEHICLE SPEED CALENDAR YEAR

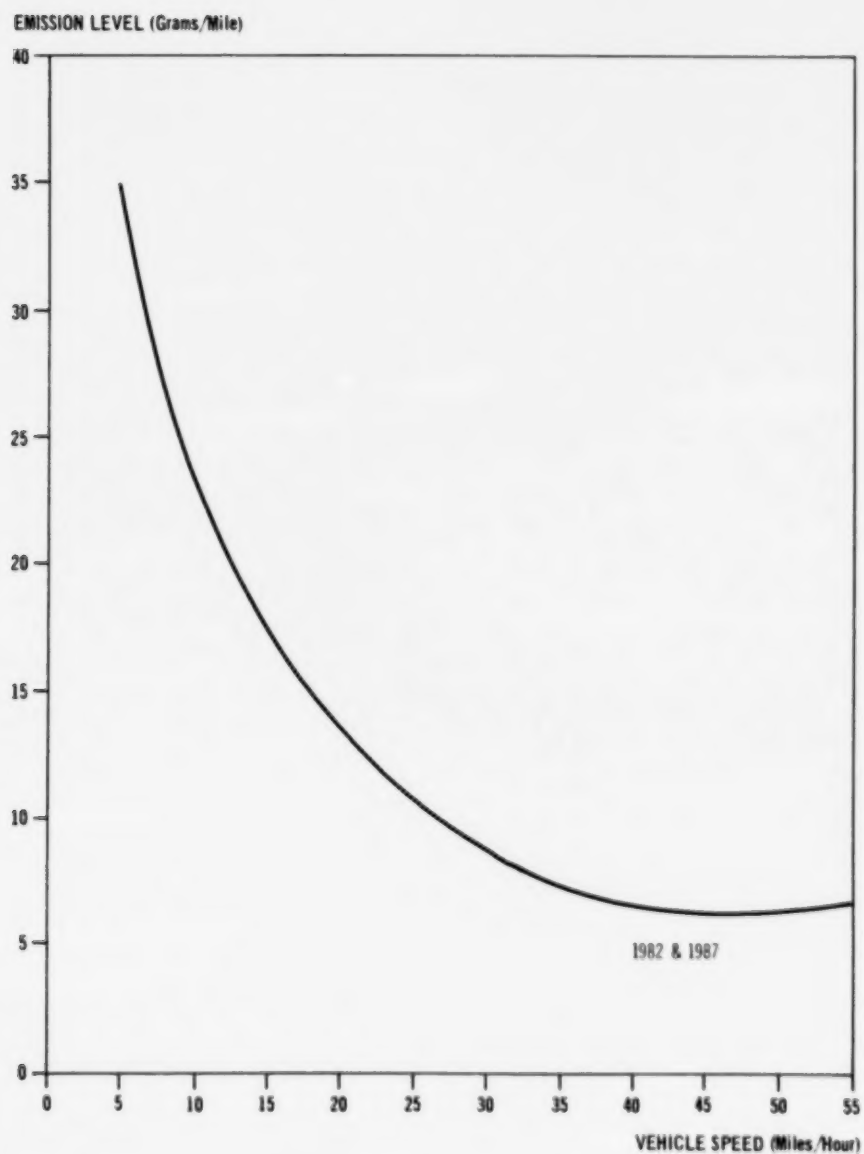


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 108

**HEAVY DUTY DIESEL-POWERED VEHICLES**  
**CARBON MONOXIDE**

VEHICLE SPEED CALENDAR YEAR

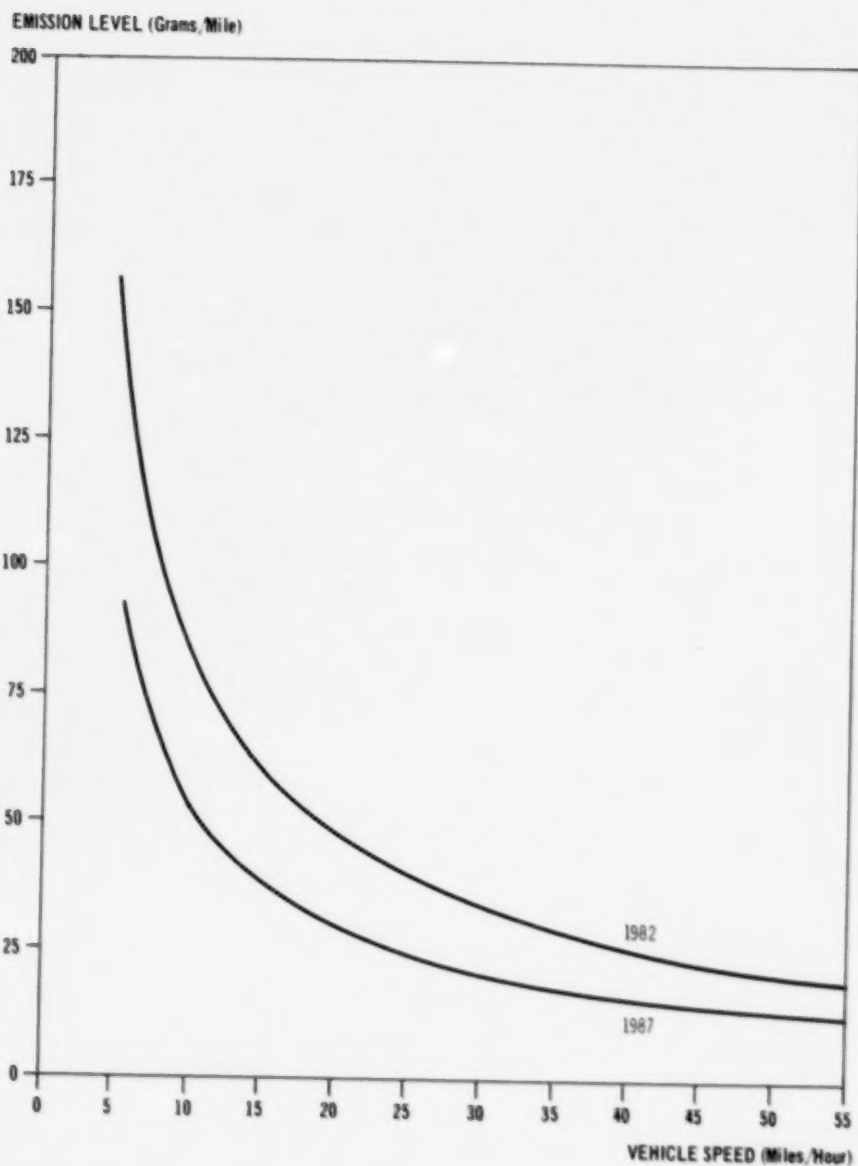




MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 109  
**ALL VEHICLES COMBINED**  
**CARBON MONOXIDE**

VEHICLE SPEED CALENDAR YEAR

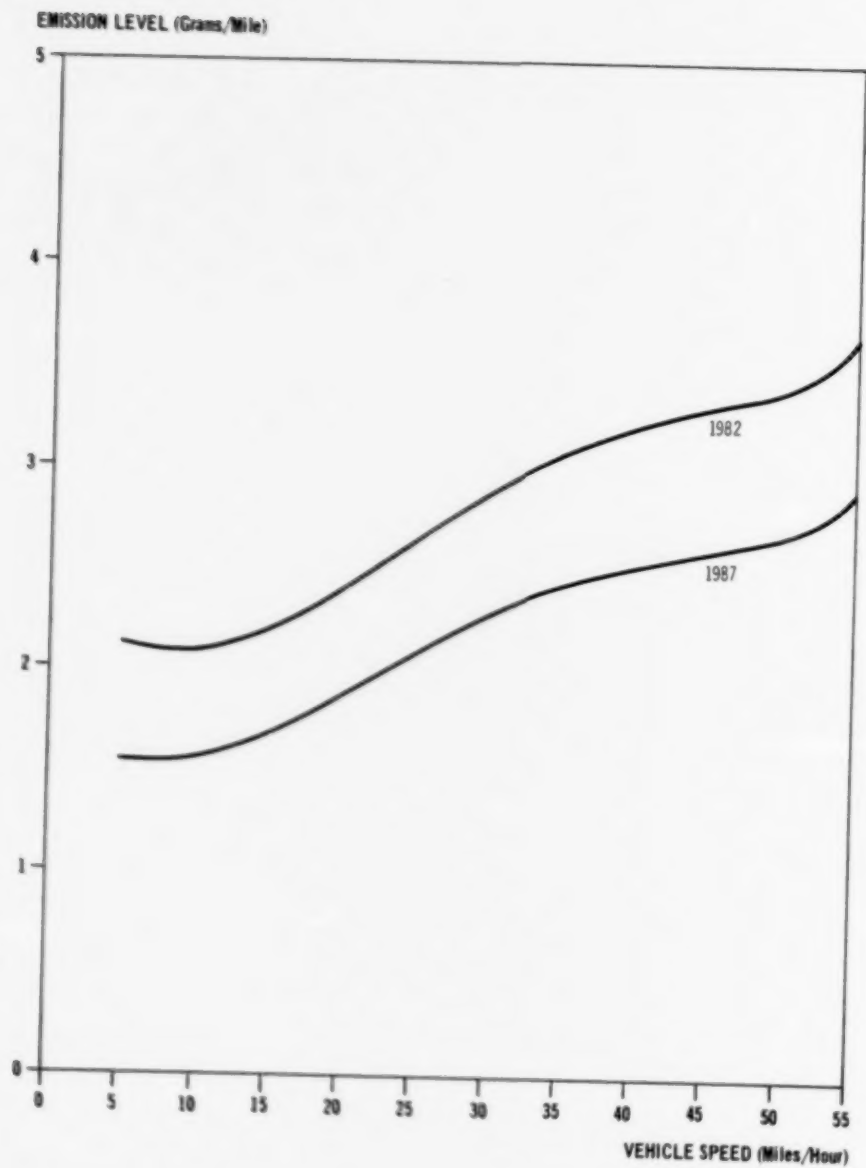


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 110

LIGHT DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN

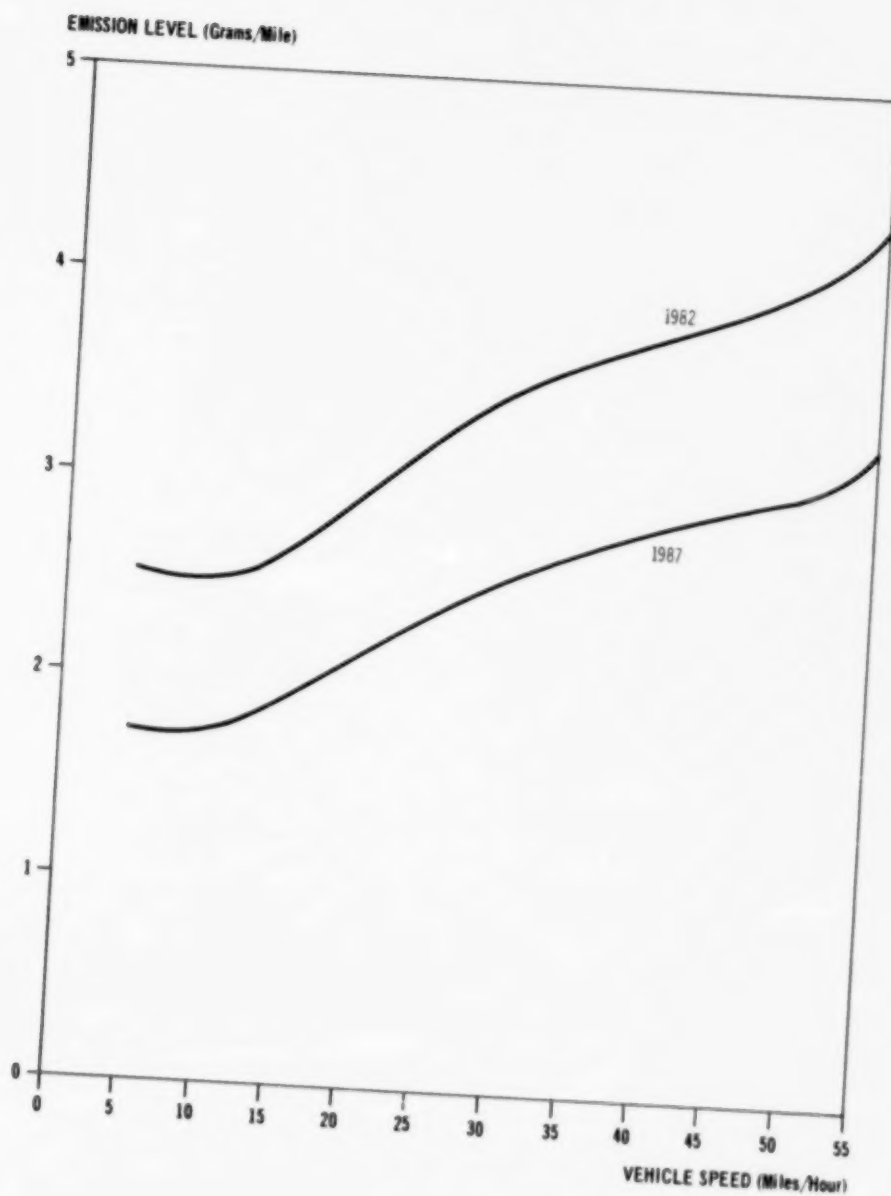
VEHICLE SPEED: CALENDAR YEAR



MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 111  
LIGHT DUTY GASOLINE-POWERED TRUCKS I  
OXIDES OF NITROGEN

VEHICLE SPEED/CALENDAR YEAR

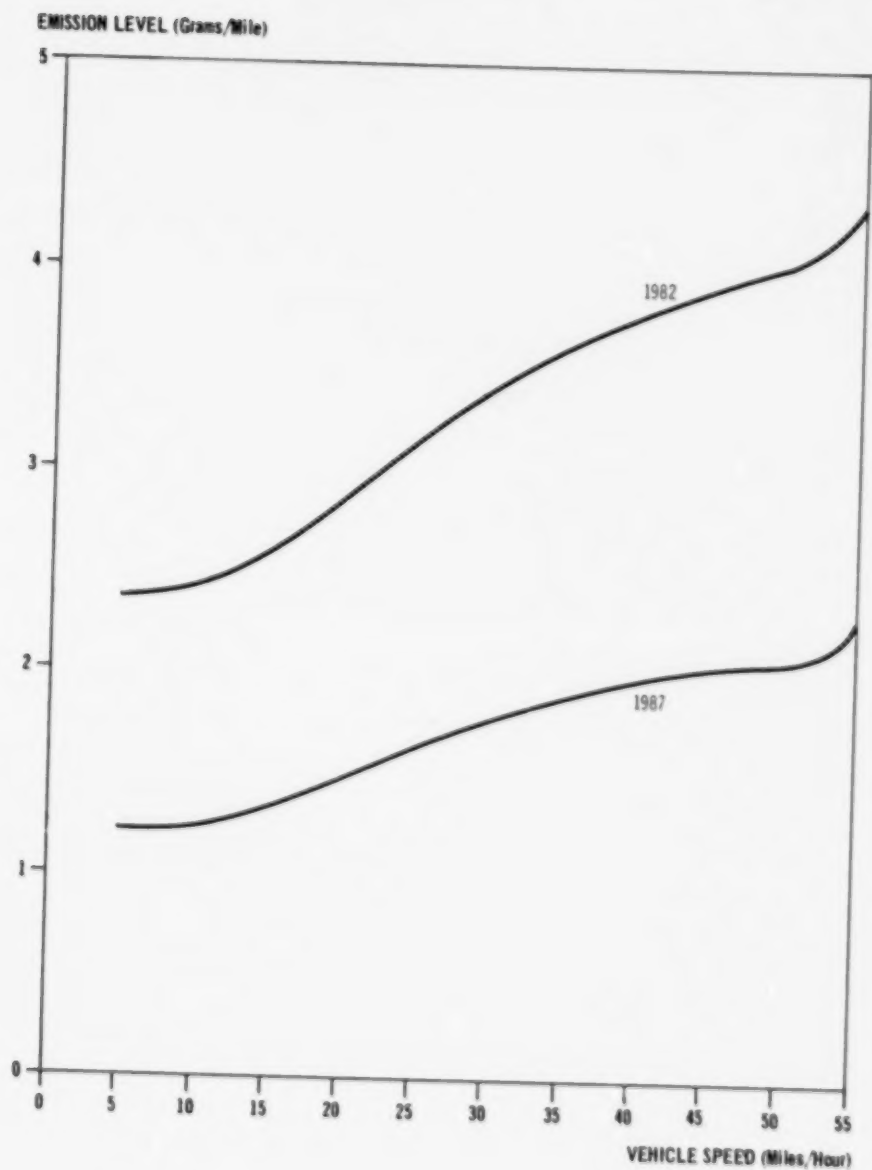


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 112

LIGHT DUTY GASOLINE-POWERED TRUCKS II  
OXIDES OF NITROGEN

VEHICLE SPEED/CALENDAR YEAR

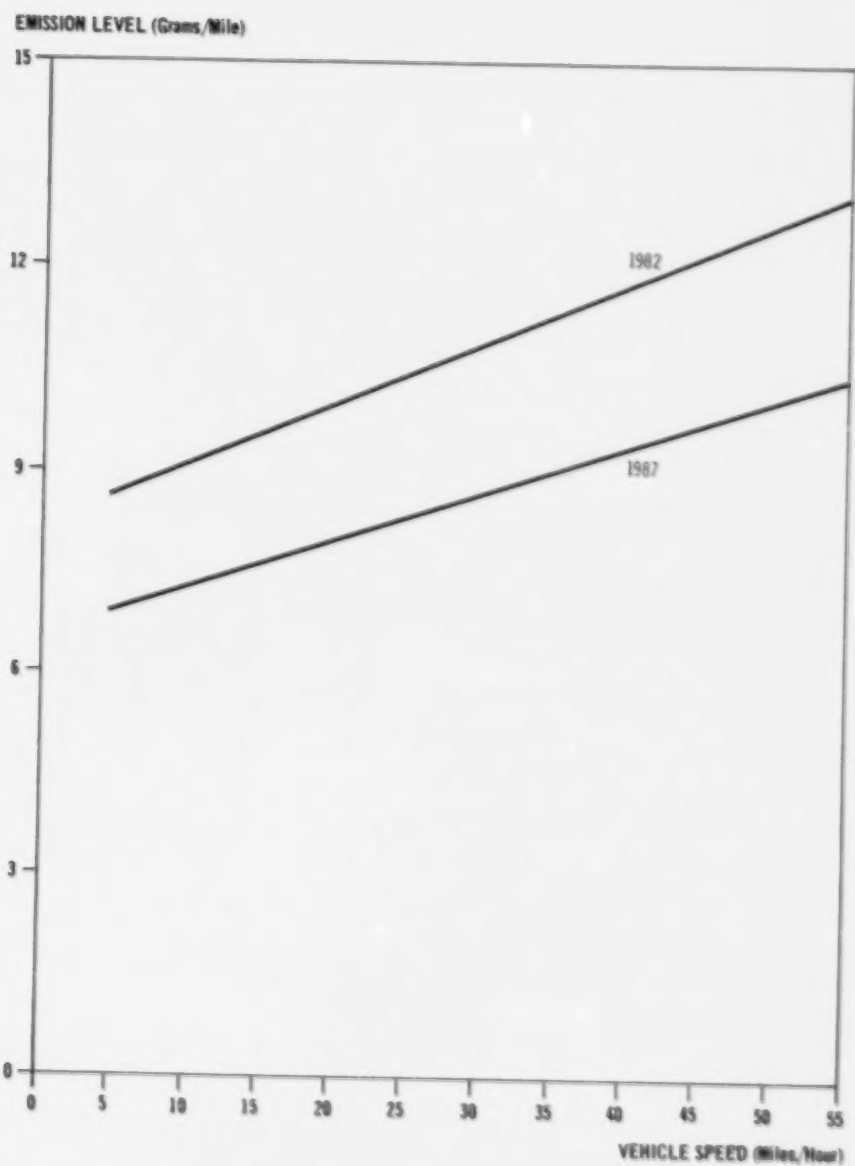


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 113

HEAVY DUTY GASOLINE-POWERED VEHICLES  
OXIDES OF NITROGEN

VEHICLE SPEED/CALENDAR YEAR

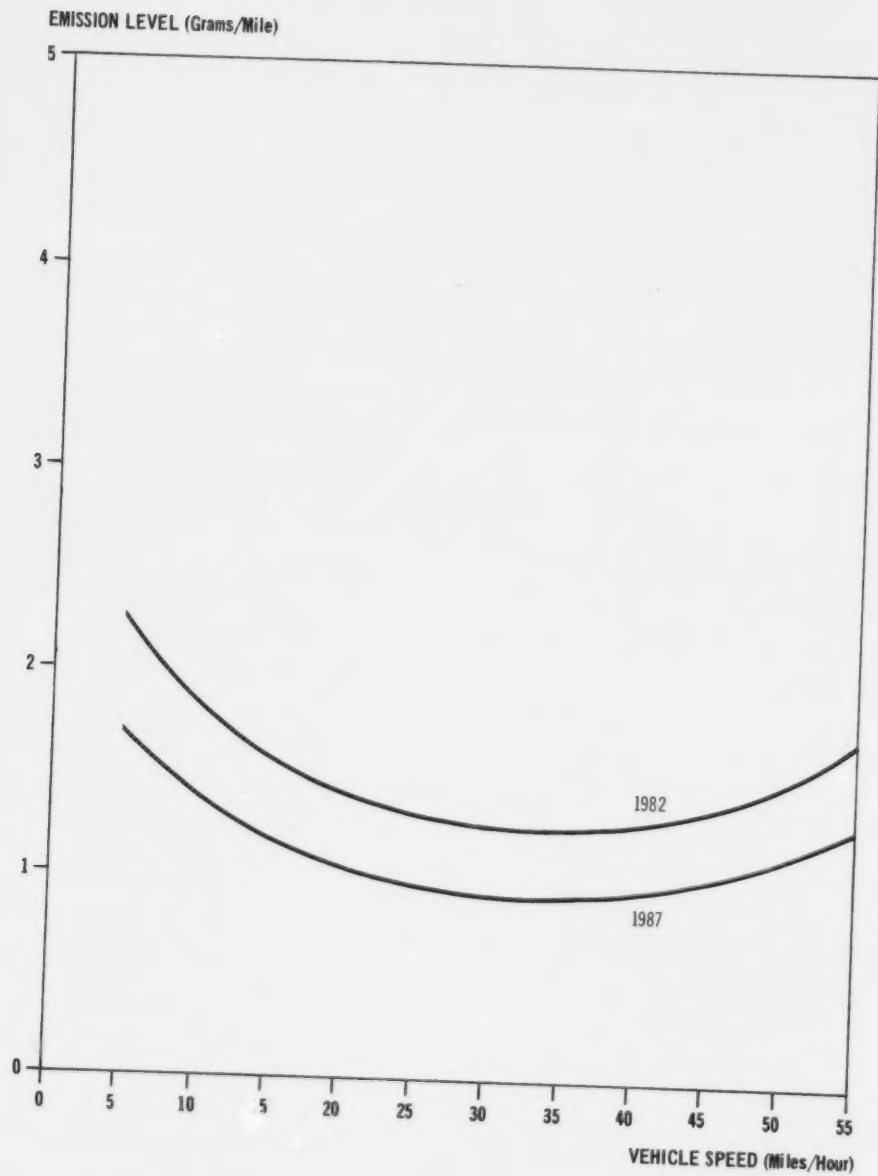


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 114

**LIGHT DUTY DIESEL-POWERED VEHICLES  
OXIDES OF NITROGEN**

VEHICLE SPEED/CALENDAR YEAR

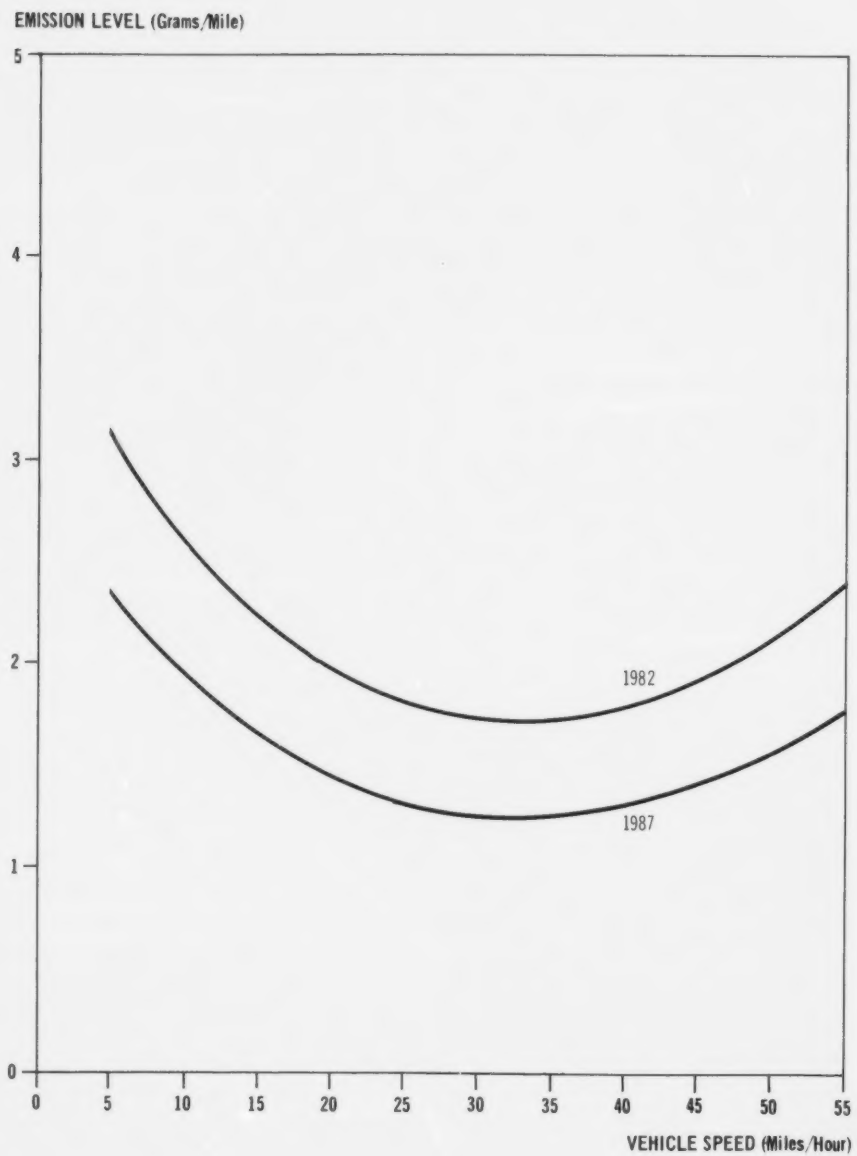


MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 115

**LIGHT DUTY DIESEL-POWERED TRUCKS**  
**OXIDES OF NITROGEN**

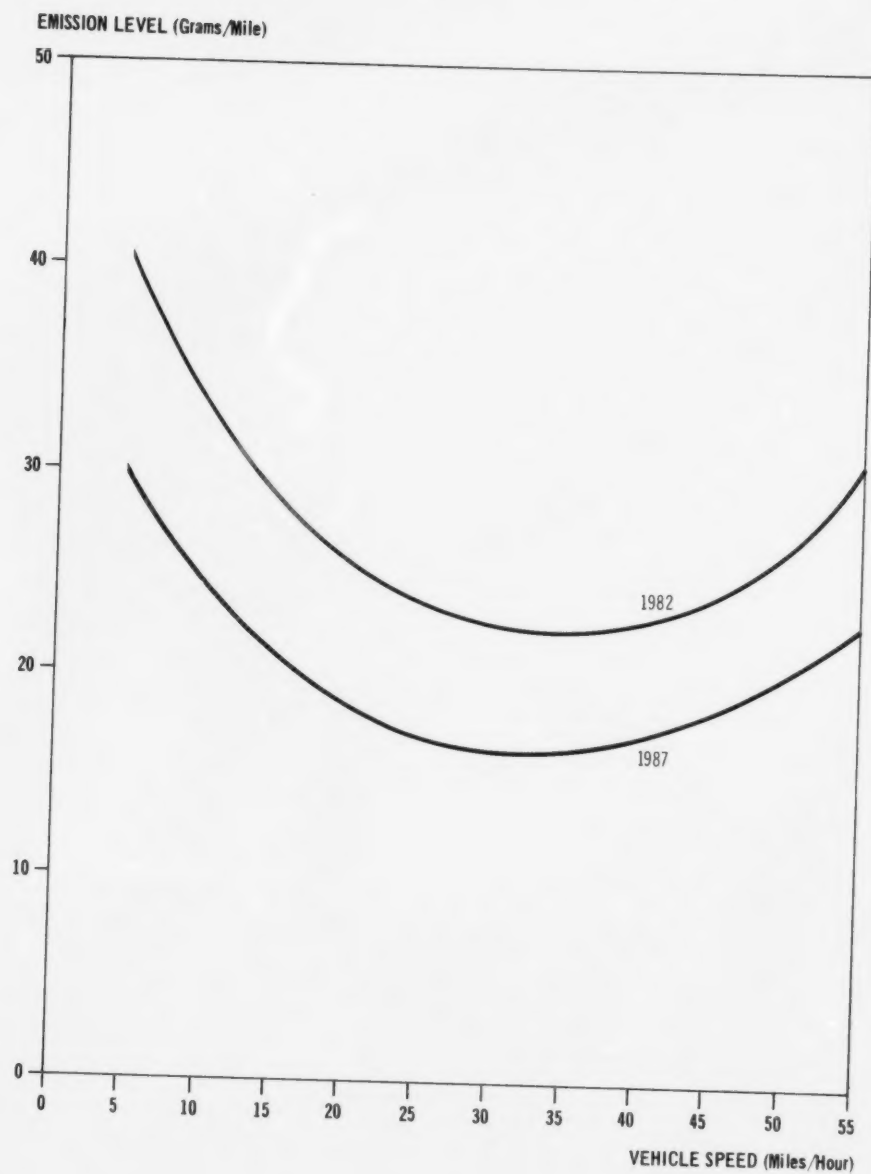
VEHICLE SPEED CALENDAR YEAR



MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 116  
HEAVY DUTY DIESEL-POWERED VEHICLES  
OXIDES OF NITROGEN

VEHICLE SPEED CALENDAR YEAR





MOBILE2 EMISSION FACTOR VARIATIONS

FIGURE 117

**ALL VEHICLES COMBINED  
OXIDES OF NITROGEN**

VEHICLE SPEED CALENDAR YEAR

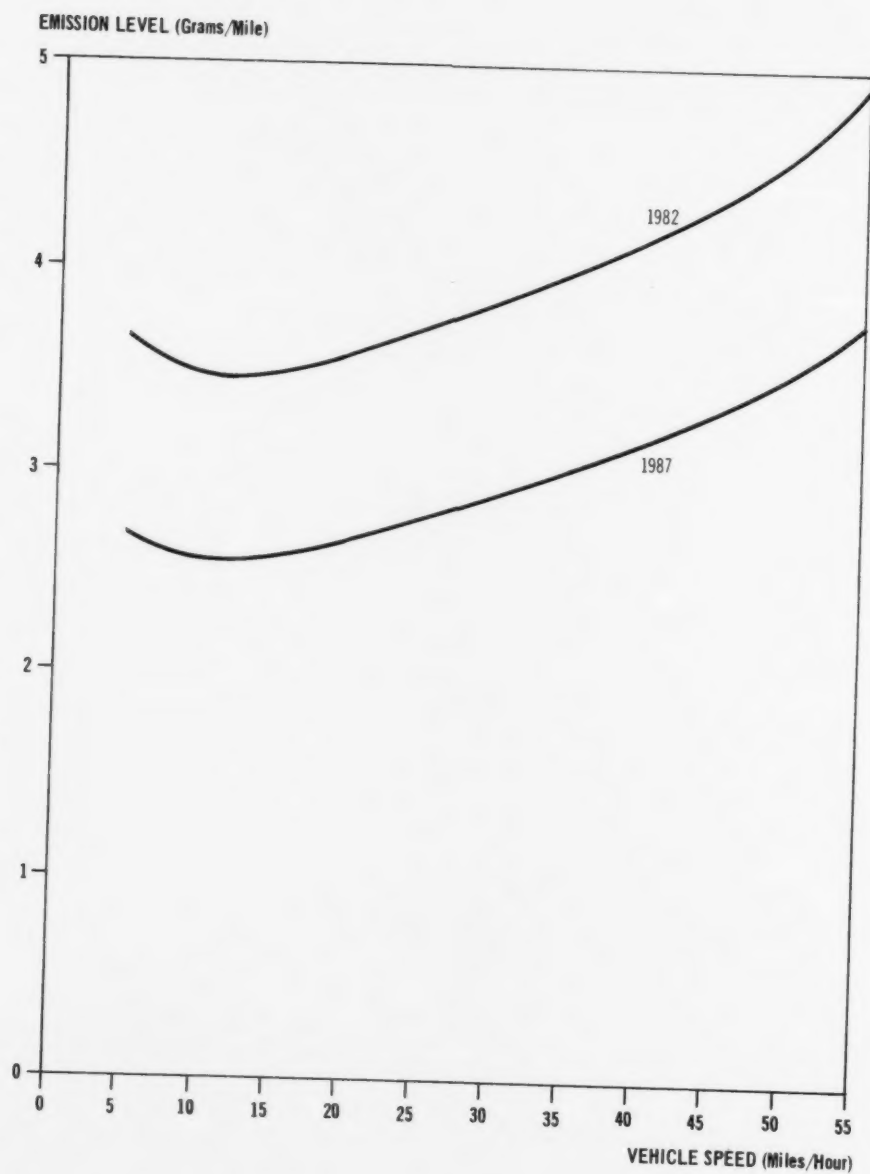


TABLE 1

SENSITIVITY OF THE MORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 9.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       | TEMPERATURE |       | LOGV** |        | AMBIENT |       | TEMPERATURE |       | LOGV** |     | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|---------|-------|-------------|-------|--------|--------|---------|-------|-------------|-------|--------|-----|--------------------|------|
|                  | PCCN                          | PCNC  | PCCC  | 0F      | 25F   | 50F         | 75F   | 100F   | 0F     | 25F     | 50F   | 75F         | 100F  | 25F    | 50F |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 22.18   | 21.26 | 20.39       | 19.82 | 20.30  | 23.81  | 22.81   | 21.87 | 21.26       | 21.31 |        |     |                    |      |
| 1975             | 0.0                           | 27.3  | 0.0   | 20.79   | 20.17 | 19.62       | 19.26 | 20.06  | 22.31  | 21.69   | 21.13 | 20.79       | 21.32 |        |     |                    |      |
| 1975             | 0.0                           | 100.0 | 0.0   | 17.09   | 17.29 | 17.55       | 17.76 | 19.41  | 18.33  | 18.70   | 19.16 | 19.53       | 21.57 |        |     |                    |      |
| 1975             | 20.6                          | 0.0   | 20.6  | 19.74   | 29.89 | 23.93       | 21.17 | 20.84  | 43.66  | 32.56   | 25.90 | 22.84       | 22.63 |        |     |                    |      |
| 1975             | 20.6                          | 27.3  | 20.6  | 38.35   | 29.81 | 23.15       | 20.61 | 20.59  | 42.17  | 31.44   | 25.16 | 22.37       | 22.53 |        |     |                    |      |
| 1975             | 100.0                         | 0.0   | 100.0 | 107.40  | 63.16 | 37.56       | 26.36 | 22.90  | 120.19 | 70.14   | 41.42 | 24.96       | 25.38 |        |     |                    |      |
| 1980             | 0.0                           | 0.0   | 0.0   | 15.63   | 14.24 | 13.08       | 12.38 | 13.93  | 16.80  | 15.48   | 14.38 | 13.71       | 15.21 |        |     |                    |      |
| 1980             | 0.0                           | 27.3  | 0.0   | 14.22   | 13.25 | 12.47       | 12.01 | 13.69  | 15.36  | 14.50   | 13.80 | 13.41       | 15.12 |        |     |                    |      |
| 1980             | 0.0                           | 100.0 | 0.0   | 10.45   | 10.63 | 10.85       | 11.03 | 13.06  | 11.53  | 11.87   | 12.28 | 12.62       | 14.87 |        |     |                    |      |
| 1980             | 20.6                          | 0.0   | 20.6  | 28.77   | 20.74 | 15.87       | 13.62 | 14.35  | 31.39  | 22.74   | 17.52 | 15.11       | 15.78 |        |     |                    |      |
| 1980             | 20.6                          | 27.3  | 20.6  | 27.36   | 19.75 | 15.26       | 13.25 | 14.11  | 29.95  | 21.75   | 16.94 | 14.81       | 15.68 |        |     |                    |      |
| 1980             | 100.0                         | 0.0   | 100.0 | 79.41   | 45.80 | 26.64       | 18.38 | 15.97  | 87.61  | 50.71   | 29.62 | 20.50       | 17.97 |        |     |                    |      |
| 1982             | 0.0                           | 0.0   | 0.0   | 13.88   | 12.25 | 10.93       | 10.14 | 12.01  | 13.94  | 12.33   | 11.01 | 10.23       | 12.08 |        |     |                    |      |
| 1982             | 0.0                           | 27.3  | 0.0   | 12.40   | 11.23 | 10.29       | 9.75  | 11.64  | 12.53  | 11.38   | 10.45 | 9.92        | 11.81 |        |     |                    |      |
| 1982             | 0.0                           | 100.0 | 0.0   | 8.44    | 8.50  | 8.61        | 8.71  | 10.64  | 8.77   | 8.85    | 8.97  | 9.08        | 11.08 |        |     |                    |      |
| 1982             | 20.6                          | 0.0   | 20.6  | 24.75   | 17.58 | 13.19       | 11.14 | 12.24  | 25.30  | 17.93   | 13.43 | 11.34       | 12.37 |        |     |                    |      |
| 1982             | 20.6                          | 27.3  | 20.6  | 23.26   | 16.55 | 12.56       | 10.75 | 11.86  | 23.89  | 16.98   | 12.88 | 11.02       | 12.09 |        |     |                    |      |
| 1982             | 100.0                         | 0.0   | 100.0 | 66.64   | 38.08 | 21.93       | 15.01 | 13.10  | 69.10  | 39.52   | 22.77 | 15.59       | 15.46 |        |     |                    |      |

TABLE 1 (Continued)  
SENSITIVITY OF THE WORLD? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START WMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES<br>PCHC °CHC PCCC | OF    | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F | OF    | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------------------------|-------|----------------|-------|--------------------|------|-------|----------------|-------|--------------------|------|
| 1987             | 0.0 0.0 0.0                                     | 9.81  | 8.27           | 7.01  | 6.27               | 7.74 | 9.30  | 7.87           | 6.72  | 6.04               | 7.64 |
| 1987             | 0.0 27.3 0.0                                    | 8.73  | 7.55           | 6.58  | 6.00               | 7.42 | 8.18  | 7.12           | 6.26  | 5.76               | 7.20 |
| 1987             | 0.0 100.0 0.0                                   | 5.85  | 5.62           | 5.41  | 5.28               | 6.57 | 5.20  | 5.11           | 5.05  | 5.02               | 6.37 |
| 1987             | 20.6 0.0 20.6                                   | 16.17 | 11.22          | 8.17  | 6.72               | 7.75 | 16.21 | 11.20          | 8.12  | 6.67               | 7.73 |
| 1987             | 20.6 27.3 20.6                                  | 15.09 | 10.50          | 7.73  | 6.45               | 7.43 | 15.09 | 10.44          | 7.66  | 6.39               | 7.39 |
| 1987             | 100.0 0.0 100.0                                 | 40.69 | 22.60          | 12.62 | 8.44               | 7.41 | 42.81 | 24.00          | 13.53 | 9.10               | 8.10 |
| 1990             | 0.0 0.0 0.0                                     | 7.62  | 6.46           | 5.50  | 4.92               | 5.71 | 6.43  | 5.74           | 4.85  | 4.33               | 5.39 |
| 1990             | 0.0 27.3 0.0                                    | 6.97  | 6.04           | 5.25  | 4.74               | 5.58 | 6.07  | 5.23           | 4.55  | 4.15               | 5.18 |
| 1990             | 0.0 100.0 0.0                                   | 5.23  | 4.90           | 4.59  | 4.39               | 5.24 | 4.06  | 3.90           | 3.76  | 3.67               | 4.59 |
| 1990             | 20.6 0.0 20.6                                   | 12.08 | 8.44           | 6.19  | 5.11               | 5.74 | 11.74 | 8.06           | 5.80  | 4.74               | 5.50 |
| 1990             | 20.6 27.3 20.6                                  | 11.43 | 8.01           | 5.94  | 4.97               | 5.61 | 10.98 | 7.56           | 5.51  | 4.56               | 5.29 |
| 1990             | 100.0 0.0 100.0                                 | 29.27 | 16.05          | 8.44  | 5.85               | 5.84 | 30.68 | 17.01          | 9.48  | 6.33               | 5.93 |
| 1995             | 0.0 0.0 0.0                                     | 5.74  | 4.96           | 4.29  | 3.88               | 4.03 | 4.44  | 3.75           | 3.18  | 2.84               | 3.29 |
| 1995             | 0.0 27.3 0.0                                    | 5.48  | 4.81           | 4.22  | 3.86               | 4.10 | 4.09  | 3.53           | 3.07  | 2.78               | 3.24 |
| 1995             | 0.0 100.0 0.0                                   | 4.79  | 4.40           | 4.04  | 3.81               | 4.29 | 3.17  | 2.95           | 2.75  | 2.62               | 3.12 |
| 1995             | 20.6 0.0 20.6                                   | 8.72  | 6.18           | 4.61  | 3.87               | 4.09 | 7.60  | 5.20           | 3.74  | 3.05               | 3.44 |
| 1995             | 20.6 27.3 20.6                                  | 8.46  | 6.02           | 4.55  | 3.85               | 4.16 | 7.25  | 4.98           | 3.62  | 3.00               | 3.39 |
| 1995             | 100.0 0.0 100.0                                 | 20.22 | 10.86          | 5.46  | 3.82               | 4.31 | 19.74 | 10.77          | 5.99  | 3.88               | 4.01 |

TABLE 1 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|---------|------|-------------|------|---------|------|-------------|------|---------|------|-------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 25F     | 0F   | 50F         | 75F  | 25F     | 0F   | 50F         | 75F  | 25F     | 0F   | 50F         | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.86 | 0.86        | 0.86 | 0.86    | 0.86 | 0.86        | 0.86 |
| 1975             | 0.0                           | 27.3  | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.78 | 0.78        | 0.78 | 0.78    | 0.78 | 0.78        | 0.78 |
| 1975             | 0.0                           | 100.0 | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.57 | 0.57        | 0.57 | 0.57    | 0.57 | 0.57        | 0.57 |
| 1975             | 20.6                          | 0.0   | 20.6  | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.88 | 0.88        | 0.88 | 0.88    | 0.88 | 0.88        | 0.88 |
| 1975             | 20.6                          | 27.3  | 20.6  | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.80 | 0.80        | 0.80 | 0.80    | 0.80 | 0.80        | 0.80 |
| 1975             | 100.0                         | 0.0   | 100.0 | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.97 | 0.97        | 0.97 | 0.97    | 0.97 | 0.97        | 0.97 |
| 1980             | 0.0                           | 0.0   | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.40 | 1.40        | 1.40 | 1.40    | 1.40 | 1.40        | 1.40 |
| 1980             | 0.0                           | 27.3  | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.29 | 1.29        | 1.29 | 1.29    | 1.29 | 1.29        | 1.29 |
| 1980             | 0.0                           | 100.0 | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.98 | 0.98        | 0.98 | 0.98    | 0.98 | 0.98        | 0.98 |
| 1980             | 20.6                          | 0.0   | 20.6  | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.45 | 1.45        | 1.45 | 1.45    | 1.45 | 1.45        | 1.45 |
| 1980             | 20.6                          | 27.3  | 20.6  | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.33 | 1.33        | 1.33 | 1.33    | 1.33 | 1.33        | 1.33 |
| 1980             | 100.0                         | 0.0   | 100.0 | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.60 | 1.60        | 1.60 | 1.60    | 1.60 | 1.60        | 1.60 |
| 1982             | 0.0                           | 0.0   | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.07 | 1.07        | 1.07 | 1.07    | 1.07 | 1.07        | 1.07 |
| 1982             | 0.0                           | 27.3  | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.99 | 0.99        | 0.99 | 0.99    | 0.99 | 0.99        | 0.99 |
| 1982             | 0.0                           | 100.0 | 0.0   | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 0.77 | 0.77        | 0.77 | 0.77    | 0.77 | 0.77        | 0.77 |
| 1982             | 20.6                          | 0.0   | 20.6  | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.11 | 1.11        | 1.11 | 1.11    | 1.11 | 1.11        | 1.11 |
| 1982             | 20.6                          | 27.3  | 20.6  | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.02 | 1.02        | 1.02 | 1.02    | 1.02 | 1.02        | 1.02 |
| 1982             | 100.0                         | 0.0   | 100.0 | 8.15    | 8.15 | 8.15        | 8.15 | 8.15    | 1.23 | 1.23        | 1.23 | 1.23    | 1.23 | 1.23        | 1.23 |

TABLE 1 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **NDVV** |                |      |                    | **LDDV** |      |                |      |                    |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|
|                  | PCCH                          | PHCH  | PECC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F |
| 1987             | 0.0                           | 0.0   | 0.0   | 7.56     | 7.56           | 7.56 | 7.56               | 7.56     | 0.99 | 0.99           | 0.99 | 0.99               |
| 1987             | 0.0                           | 27.3  | 0.0   | 7.56     | 7.56           | 7.56 | 7.56               | 7.56     | 0.92 | 0.92           | 0.92 | 0.92               |
| 1987             | 0.0                           | 100.0 | 0.0   | 7.56     | 7.56           | 7.56 | 7.56               | 7.56     | 0.74 | 0.74           | 0.74 | 0.74               |
| 1987             | 20.6                          | 0.0   | 20.6  | 7.56     | 7.56           | 7.56 | 7.56               | 7.56     | 1.02 | 1.02           | 1.02 | 1.02               |
| 1987             | 20.6                          | 27.3  | 20.6  | 7.56     | 7.56           | 7.56 | 7.56               | 7.56     | 0.95 | 0.95           | 0.95 | 0.95               |
| 1987             | 100.0                         | 0.0   | 100.0 | 7.56     | 7.56           | 7.56 | 7.56               | 7.56     | 1.14 | 1.14           | 1.14 | 1.14               |
| 1990             | 0.0                           | 0.0   | 0.0   | 7.06     | 7.06           | 7.06 | 7.06               | 7.06     | 1.00 | 1.00           | 1.00 | 1.00               |
| 1990             | 0.0                           | 27.3  | 0.0   | 7.06     | 7.06           | 7.06 | 7.06               | 7.06     | 0.93 | 0.93           | 0.93 | 0.93               |
| 1990             | 0.0                           | 100.0 | 0.0   | 7.06     | 7.06           | 7.06 | 7.06               | 7.06     | 0.75 | 0.75           | 0.75 | 0.75               |
| 1990             | 20.6                          | 0.0   | 20.6  | 7.06     | 7.06           | 7.06 | 7.06               | 7.06     | 1.03 | 1.03           | 1.03 | 1.03               |
| 1990             | 20.6                          | 27.3  | 20.6  | 7.06     | 7.06           | 7.06 | 7.06               | 7.06     | 0.97 | 0.97           | 0.97 | 0.97               |
| 1990             | 100.0                         | 0.0   | 100.0 | 7.06     | 7.06           | 7.06 | 7.06               | 7.06     | 1.16 | 1.16           | 1.16 | 1.16               |
| 1995             | 0.0                           | 0.0   | 0.0   | 6.71     | 6.71           | 6.71 | 6.71               | 6.71     | 1.05 | 1.05           | 1.05 | 1.05               |
| 1995             | 0.0                           | 27.3  | 0.0   | 6.71     | 6.71           | 6.71 | 6.71               | 6.71     | 0.99 | 0.99           | 0.99 | 0.99               |
| 1995             | 0.0                           | 100.0 | 0.0   | 6.71     | 6.71           | 6.71 | 6.71               | 6.71     | 0.81 | 0.81           | 0.81 | 0.81               |
| 1995             | 20.6                          | 0.0   | 20.6  | 6.71     | 6.71           | 6.71 | 6.71               | 6.71     | 1.09 | 1.09           | 1.09 | 1.09               |
| 1995             | 20.6                          | 27.3  | 20.6  | 6.71     | 6.71           | 6.71 | 6.71               | 6.71     | 1.02 | 1.02           | 1.02 | 1.02               |
| 1995             | 100.0                         | 0.0   | 100.0 | 6.71     | 6.71           | 6.71 | 6.71               | 6.71     | 1.22 | 1.22           | 1.22 | 1.22               |

TABLE 1 (Continued)  
SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | AMBIENT<br>25F | **HDCV** |       | TEMPERATURE<br>75F | 100F  | 0F    | AMBIENT<br>25F | **LDDT** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|----------------|----------|-------|--------------------|-------|-------|----------------|----------|------|--------------------|------|
|                  | PCH                           | PCHC  |                | 50F      | 50F   |                    |       |       |                | 50F      | 50F  |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0            | 76.32    | 65.66 | 56.60              | 51.08 | 53.38 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0            | 76.32    | 65.66 | 56.60              | 51.08 | 53.38 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0            | 76.32    | 65.66 | 56.60              | 51.08 | 53.38 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6           | 76.32    | 65.66 | 56.60              | 51.08 | 53.38 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6           | 76.32    | 65.66 | 56.60              | 51.08 | 53.38 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0          | 76.32    | 65.66 | 56.60              | 51.08 | 53.38 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0            | 58.09    | 51.07 | 44.99              | 41.22 | 43.92 | 1.87           | 1.87     | 1.87 | 1.87               | 1.87 |
| 1980             | 0.0                           | 27.3  | 0.0            | 58.09    | 51.07 | 44.99              | 41.22 | 43.92 | 1.71           | 1.71     | 1.71 | 1.71               | 1.71 |
| 1980             | 0.0                           | 100.0 | 0.0            | 58.09    | 51.07 | 44.99              | 41.22 | 43.92 | 1.29           | 1.29     | 1.29 | 1.29               | 1.29 |
| 1980             | 20.6                          | 0.0   | 20.6           | 58.09    | 51.07 | 44.99              | 41.22 | 43.92 | 1.92           | 1.92     | 1.92 | 1.92               | 1.92 |
| 1980             | 20.6                          | 27.3  | 20.6           | 58.09    | 51.07 | 44.99              | 41.22 | 43.92 | 1.76           | 1.76     | 1.76 | 1.76               | 1.76 |
| 1980             | 100.0                         | 0.0   | 100.0          | 58.09    | 51.07 | 44.99              | 41.22 | 43.92 | 2.13           | 2.13     | 2.13 | 2.13               | 2.13 |
| 1982             | 0.0                           | 0.0   | 0.0            | 47.57    | 42.27 | 37.64              | 34.76 | 37.42 | 1.96           | 1.96     | 1.96 | 1.96               | 1.96 |
| 1982             | 0.0                           | 27.3  | 0.0            | 47.57    | 42.27 | 37.64              | 34.76 | 37.42 | 1.81           | 1.81     | 1.81 | 1.81               | 1.81 |
| 1982             | 0.0                           | 100.0 | 0.0            | 47.57    | 42.27 | 37.64              | 34.76 | 37.42 | 1.39           | 1.39     | 1.39 | 1.39               | 1.39 |
| 1982             | 20.6                          | 0.0   | 20.6           | 47.57    | 42.27 | 37.64              | 34.76 | 37.42 | 2.02           | 2.02     | 2.02 | 2.02               | 2.02 |
| 1982             | 20.6                          | 27.3  | 20.6           | 47.57    | 42.27 | 37.64              | 34.76 | 37.42 | 1.86           | 1.86     | 1.86 | 1.86               | 1.86 |
| 1982             | 100.0                         | 0.0   | 100.0          | 47.57    | 42.27 | 37.64              | 34.76 | 37.42 | 2.24           | 2.24     | 2.24 | 2.24               | 2.24 |



TABLE 1 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>TEMPERATURE |       | AMBIENT<br>TEMPERATURE |       | AMBIENT<br>TEMPERATURE |      | AMBIENT<br>TEMPERATURE |      | AMBIENT<br>TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|------------------------|-------|------------------------|-------|------------------------|------|------------------------|------|------------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | OF                     | 25F   | 50F                    | 75F   | 100F                   | OF   | 25F                    | 50F  | 75F                    | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 25.18                  | 22.37 | 19.95                  | 18.45 | 20.46                  | 1.75 | 1.75                   | 1.75 | 1.75                   | 1.75 |
| 1987             | 0.0                           | 27.3  | 0.0   | 25.18                  | 22.37 | 19.95                  | 18.45 | 20.46                  | 1.63 | 1.63                   | 1.63 | 1.63                   | 1.63 |
| 1987             | 0.0                           | 100.0 | 0.0   | 25.18                  | 22.37 | 19.95                  | 18.45 | 20.46                  | 1.31 | 1.31                   | 1.31 | 1.31                   | 1.31 |
| 1987             | 20.6                          | 0.0   | 20.6  | 25.18                  | 22.37 | 19.95                  | 18.45 | 20.46                  | 1.80 | 1.80                   | 1.80 | 1.80                   | 1.80 |
| 1987             | 20.6                          | 27.3  | 20.6  | 25.18                  | 22.37 | 19.95                  | 18.45 | 20.46                  | 1.69 | 1.69                   | 1.69 | 1.69                   | 1.69 |
| 1987             | 100.0                         | 0.0   | 100.0 | 25.18                  | 22.37 | 19.95                  | 18.45 | 20.46                  | 2.02 | 2.02                   | 2.02 | 2.02                   | 2.02 |
| 1990             | 0.0                           | 0.0   | 0.0   | 18.22                  | 15.66 | 13.53                  | 12.25 | 13.76                  | 1.70 | 1.70                   | 1.70 | 1.70                   | 1.70 |
| 1990             | 0.0                           | 27.3  | 0.0   | 18.22                  | 15.66 | 13.53                  | 12.25 | 13.76                  | 1.59 | 1.59                   | 1.59 | 1.59                   | 1.59 |
| 1990             | 0.0                           | 100.0 | 0.0   | 18.22                  | 15.66 | 13.53                  | 12.25 | 13.76                  | 1.29 | 1.29                   | 1.29 | 1.29                   | 1.29 |
| 1990             | 20.6                          | 0.0   | 20.6  | 18.22                  | 15.66 | 13.53                  | 12.25 | 13.76                  | 1.75 | 1.75                   | 1.75 | 1.75                   | 1.75 |
| 1990             | 20.6                          | 27.3  | 20.6  | 18.22                  | 15.66 | 13.53                  | 12.25 | 13.76                  | 1.64 | 1.64                   | 1.64 | 1.64                   | 1.64 |
| 1990             | 100.0                         | 0.0   | 100.0 | 18.22                  | 15.66 | 13.53                  | 12.25 | 13.76                  | 1.96 | 1.96                   | 1.96 | 1.96                   | 1.96 |
| 1995             | 0.0                           | 0.0   | 0.0   | 13.94                  | 11.44 | 9.44                   | 8.27  | 9.31                   | 1.78 | 1.78                   | 1.78 | 1.78                   | 1.78 |
| 1995             | 0.0                           | 27.3  | 0.0   | 13.94                  | 11.44 | 9.44                   | 8.27  | 9.31                   | 1.67 | 1.67                   | 1.67 | 1.67                   | 1.67 |
| 1995             | 0.0                           | 100.0 | 0.0   | 13.94                  | 11.44 | 9.44                   | 8.27  | 9.31                   | 1.38 | 1.38                   | 1.38 | 1.38                   | 1.38 |
| 1995             | 20.6                          | 0.0   | 20.6  | 13.94                  | 11.44 | 9.44                   | 8.27  | 9.31                   | 1.84 | 1.84                   | 1.84 | 1.84                   | 1.84 |
| 1995             | 20.6                          | 27.3  | 20.6  | 13.94                  | 11.44 | 9.44                   | 8.27  | 9.31                   | 1.73 | 1.73                   | 1.73 | 1.73                   | 1.73 |
| 1995             | 100.0                         | 0.0   | 100.0 | 13.94                  | 11.44 | 9.44                   | 8.27  | 9.31                   | 2.07 | 2.07                   | 2.07 | 2.07                   | 2.07 |

TABLE 1 (Continued)  
SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....mph

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |       |       |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|-------|-------|-------|
|                  | PCCN                          | PHC   | PCCC  | OF                                                              | AMBIENT<br>25F | 50F   | 75F   | 100F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 24.32                                                           | 23.00          | 21.00 | 21.03 | 21.59 |
| 1975             | 0.0                           | 27.3  | 0.0   | 23.02                                                           | 21.99          | 21.00 | 20.52 | 21.38 |
| 1975             | 0.0                           | 100.0 | 0.0   | 19.54                                                           | 19.30          | 19.17 | 19.15 | 20.02 |
| 1975             | 20.6                          | 0.0   | 20.6  | 40.92                                                           | 31.16          | 25.15 | 22.31 | 22.11 |
| 1975             | 20.6                          | 27.3  | 20.6  | 39.61                                                           | 30.15          | 24.83 | 21.00 | 21.90 |
| 1975             | 100.0                         | 0.0   | 100.0 | 104.94                                                          | 62.61          | 38.05 | 27.25 | 24.11 |
| 1980             | 0.0                           | 0.0   | 0.0   | 17.32                                                           | 15.75          | 14.44 | 13.64 | 15.16 |
| 1980             | 0.0                           | 27.3  | 0.0   | 16.02                                                           | 14.84          | 13.88 | 13.31 | 14.96 |
| 1980             | 0.0                           | 100.0 | 0.0   | 12.55                                                           | 12.43          | 12.39 | 12.42 | 14.42 |
| 1980             | 20.6                          | 0.0   | 20.6  | 29.64                                                           | 21.85          | 17.06 | 14.80 | 15.56 |
| 1980             | 20.6                          | 27.3  | 20.6  | 28.33                                                           | 20.94          | 16.50 | 14.47 | 15.36 |
| 1980             | 100.0                         | 0.0   | 100.0 | 77.11                                                           | 45.35          | 27.16 | 19.26 | 17.12 |
| 1982             | 0.0                           | 0.0   | 0.0   | 14.96                                                           | 13.27          | 11.87 | 11.04 | 12.43 |
| 1982             | 0.0                           | 27.3  | 0.0   | 13.62                                                           | 12.35          | 11.30 | 10.69 | 12.51 |
| 1982             | 0.0                           | 100.0 | 0.0   | 10.06                                                           | 9.90           | 9.80  | 9.77  | 11.64 |
| 1982             | 20.6                          | 0.0   | 20.6  | 24.94                                                           | 18.16          | 13.96 | 11.97 | 13.05 |
| 1982             | 20.6                          | 27.3  | 20.6  | 23.61                                                           | 17.24          | 13.39 | 11.62 | 12.72 |
| 1982             | 100.0                         | 0.0   | 100.0 | 63.43                                                           | 37.02          | 22.01 | 15.54 | 13.88 |



TABLE 1 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | NF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |       |       |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|-------|-------|------|
|                  | PCCN                          | PCNC  | PCCC  | AMBIENT<br>25F                                                  | 50F   | 75F   | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 9.79                                                            | 8.37  | 7.21  | 6.52 |
| 1987             | 0.0                           | 27.3  | 0.0   | 8.86                                                            | 7.75  | 6.83  | 6.29 |
| 1987             | 0.0                           | 100.0 | 0.0   | 6.37                                                            | 6.07  | 5.81  | 5.66 |
| 1987             | 20.6                          | 0.0   | 20.6  | 15.38                                                           | 10.99 | 8.25  | 6.94 |
| 1987             | 20.6                          | 27.3  | 20.6  | 14.44                                                           | 10.36 | 7.87  | 6.70 |
| 1987             | 100.0                         | 0.0   | 100.0 | 36.92                                                           | 21.06 | 12.25 | 8.53 |
| 1990             | 0.0                           | 0.0   | 0.0   | 7.32                                                            | 6.28  | 5.41  | 4.90 |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.77                                                            | 5.91  | 5.20  | 4.77 |
| 1990             | 0.0                           | 100.0 | 0.0   | 5.29                                                            | 4.94  | 4.62  | 4.42 |
| 1990             | 20.6                          | 0.0   | 20.6  | 11.10                                                           | 7.98  | 6.03  | 5.19 |
| 1990             | 20.6                          | 27.3  | 20.6  | 10.55                                                           | 7.61  | 5.81  | 5.67 |
| 1990             | 100.0                         | 0.0   | 100.0 | 25.65                                                           | 14.52 | 8.40  | 5.55 |
| 1995             | 0.0                           | 0.0   | 0.0   | 5.32                                                            | 4.63  | 4.05  | 3.69 |
| 1995             | 0.0                           | 27.3  | 0.0   | 5.10                                                            | 4.49  | 3.98  | 3.66 |
| 1995             | 0.0                           | 100.0 | 0.0   | 4.51                                                            | 4.13  | 3.79  | 3.58 |
| 1995             | 20.6                          | 0.0   | 20.6  | 7.72                                                            | 5.64  | 4.35  | 3.72 |
| 1995             | 20.6                          | 27.3  | 20.6  | 7.49                                                            | 5.50  | 4.28  | 3.69 |
| 1995             | 100.0                         | 0.0   | 100.0 | 16.95                                                           | 9.52  | 5.51  | 3.85 |
|                  |                               |       |       |                                                                 |       |       | 4.20 |

SENSITIVITY OF THE MOBILE EMISSION FACTORS TO VARIATIONS IN VEHICLE  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE) SPEED = 10.0.....MPH

[illegible]

TABLE 2 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       | TEMPERATURE |      | AMBIENT |       | TEMPERATURE |      | AMBIENT |       | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------------|------|---------|-------|-------------|------|---------|-------|-------------|------|
|                  | PCCH                          | PCMC  | PCCC  | OF      | 25F   | 50F         | 75F  | 100F    | OF    | 25F         | 50F  | 100F    | OF    | 25F         | 50F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 5.34    | 4.52  | 3.85        | 3.45 | 4.24    | 5.07  | 4.30        | 3.68 | 4.24    | 5.07  | 4.30        | 3.68 |
| 1987             | 0.0                           | 27.3  | 0.0   | 4.77    | 4.14  | 3.62        | 3.31 | 4.07    | 4.47  | 3.90        | 3.44 | 4.07    | 4.47  | 3.90        | 3.44 |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.24    | 3.11  | 3.00        | 2.93 | 3.61    | 2.89  | 2.84        | 2.80 | 3.61    | 2.89  | 2.84        | 2.80 |
| 1987             | 20.6                          | 0.0   | 20.6  | 8.71    | 6.09  | 4.46        | 3.69 | 4.24    | 8.71  | 6.05        | 4.42 | 4.24    | 8.71  | 6.05        | 4.42 |
| 1987             | 20.6                          | 27.3  | 20.6  | 8.14    | 5.70  | 4.23        | 3.55 | 4.07    | 8.11  | 5.66        | 4.18 | 4.07    | 8.11  | 5.66        | 4.18 |
| 1987             | 100.0                         | 0.0   | 100.0 | 21.70   | 12.11 | 6.82        | 4.60 | 4.27    | 22.73 | 12.80       | 7.28 | 4.27    | 22.73 | 12.80       | 7.28 |
| 1990             | 0.0                           | 0.0   | 0.0   | 4.15    | 3.53  | 3.01        | 2.70 | 3.12    | 3.72  | 3.14        | 2.66 | 3.12    | 3.72  | 3.14        | 2.66 |
| 1990             | 0.0                           | 27.3  | 0.0   | 3.80    | 3.30  | 2.88        | 2.63 | 3.06    | 3.32  | 2.87        | 2.51 | 3.06    | 3.32  | 2.87        | 2.51 |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.87    | 2.69  | 2.53        | 2.42 | 2.87    | 2.25  | 2.16        | 2.09 | 2.87    | 2.25  | 2.16        | 2.09 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.53    | 4.58  | 3.38        | 2.80 | 3.14    | 6.33  | 4.37        | 3.17 | 3.14    | 6.33  | 4.37        | 3.17 |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.18    | 4.35  | 3.25        | 2.73 | 3.07    | 5.92  | 4.10        | 3.01 | 3.07    | 5.92  | 4.10        | 3.01 |
| 1990             | 100.0                         | 0.0   | 100.0 | 15.70   | 8.64  | 4.79        | 3.28 | 3.19    | 16.37 | 9.12        | 5.12 | 3.19    | 16.37 | 9.12        | 5.12 |
| 1995             | 0.0                           | 0.0   | 0.0   | 3.12    | 2.70  | 2.34        | 2.12 | 2.20    | 2.43  | 2.06        | 1.75 | 2.20    | 2.43  | 2.06        | 1.75 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.98    | 2.62  | 2.31        | 2.11 | 2.24    | 2.24  | 1.94        | 1.69 | 2.24    | 2.24  | 1.94        | 1.69 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.61    | 2.40  | 2.21        | 2.09 | 2.38    | 1.75  | 1.63        | 1.53 | 2.38    | 1.75  | 1.63        | 1.53 |
| 1995             | 20.6                          | 0.0   | 20.6  | 4.71    | 3.35  | 2.52        | 2.12 | 2.23    | 4.11  | 2.83        | 2.05 | 2.23    | 4.11  | 2.83        | 2.05 |
| 1995             | 20.6                          | 27.3  | 20.6  | 4.57    | 3.27  | 2.48        | 2.11 | 2.27    | 3.93  | 2.71        | 1.99 | 2.27    | 3.93  | 2.71        | 1.99 |
| 1995             | 100.0                         | 0.0   | 100.0 | 10.86   | 5.86  | 3.18        | 2.09 | 2.36    | 10.62 | 5.81        | 3.20 | 2.36    | 10.62 | 5.81        | 3.20 |

TABLE 2 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV**       |      |      | **LDDV**       |      |      | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|------|------|----------------|------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PHC   | PCC   | AMBIENT<br>25F | 50F  | 75F  | AMBIENT<br>25F | 50F  | 75F  |                    |      |      |                |      |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.40           | 6.40 | 6.40 | 0.68           | 0.68 | 0.68 | 0.68               | 0.68 | 0.68 | 0.68           | 0.68 | 0.68               | 0.68 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.40           | 6.40 | 6.40 | 0.61           | 0.61 | 0.61 | 0.61               | 0.61 | 0.61 | 0.61           | 0.61 | 0.61               | 0.61 |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.40           | 6.40 | 6.40 | 0.45           | 0.45 | 0.45 | 0.45               | 0.45 | 0.45 | 0.45           | 0.45 | 0.45               | 0.45 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.40           | 6.40 | 6.40 | 0.69           | 0.69 | 0.69 | 0.69               | 0.69 | 0.69 | 0.69           | 0.69 | 0.69               | 0.69 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.40           | 6.40 | 6.40 | 0.63           | 0.63 | 0.63 | 0.63               | 0.63 | 0.63 | 0.63           | 0.63 | 0.63               | 0.63 |
| 1975             | 100.0                         | 0.0   | 100.0 | 6.40           | 6.40 | 6.40 | 0.76           | 0.76 | 0.76 | 0.76               | 0.76 | 0.76 | 0.76           | 0.76 | 0.76               | 0.76 |
| 1980             | 0.0                           | 0.0   | 0.0   | 6.40           | 6.40 | 6.40 | 1.10           | 1.10 | 1.10 | 1.10               | 1.10 | 1.10 | 1.10           | 1.10 | 1.10               | 1.10 |
| 1980             | 0.0                           | 27.3  | 0.0   | 6.40           | 6.40 | 6.40 | 1.01           | 1.01 | 1.01 | 1.01               | 1.01 | 1.01 | 1.01           | 1.01 | 1.01               | 1.01 |
| 1980             | 0.0                           | 100.0 | 0.0   | 6.40           | 6.40 | 6.40 | 0.77           | 0.77 | 0.77 | 0.77               | 0.77 | 0.77 | 0.77           | 0.77 | 0.77               | 0.77 |
| 1980             | 20.6                          | 0.0   | 20.6  | 6.40           | 6.40 | 6.40 | 1.13           | 1.13 | 1.13 | 1.13               | 1.13 | 1.13 | 1.13           | 1.13 | 1.13               | 1.13 |
| 1980             | 20.6                          | 27.3  | 20.6  | 6.40           | 6.40 | 6.40 | 1.04           | 1.04 | 1.04 | 1.04               | 1.04 | 1.04 | 1.04           | 1.04 | 1.04               | 1.04 |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.40           | 6.40 | 6.40 | 1.26           | 1.26 | 1.26 | 1.26               | 1.26 | 1.26 | 1.26           | 1.26 | 1.26               | 1.26 |
| 1982             | 0.0                           | 0.0   | 0.0   | 6.40           | 6.40 | 6.40 | 0.84           | 0.84 | 0.84 | 0.84               | 0.84 | 0.84 | 0.84           | 0.84 | 0.84               | 0.84 |
| 1982             | 0.0                           | 27.3  | 0.0   | 6.40           | 6.40 | 6.40 | 0.78           | 0.78 | 0.78 | 0.78               | 0.78 | 0.78 | 0.78           | 0.78 | 0.78               | 0.78 |
| 1982             | 0.0                           | 100.0 | 0.0   | 6.40           | 6.40 | 6.40 | 0.60           | 0.60 | 0.60 | 0.60               | 0.60 | 0.60 | 0.60           | 0.60 | 0.60               | 0.60 |
| 1982             | 20.6                          | 0.0   | 20.6  | 6.40           | 6.40 | 6.40 | 0.87           | 0.87 | 0.87 | 0.87               | 0.87 | 0.87 | 0.87           | 0.87 | 0.87               | 0.87 |
| 1982             | 20.6                          | 27.3  | 20.6  | 6.40           | 6.40 | 6.40 | 0.80           | 0.80 | 0.80 | 0.80               | 0.80 | 0.80 | 0.80           | 0.80 | 0.80               | 0.80 |
| 1982             | 100.0                         | 0.0   | 100.0 | 6.40           | 6.40 | 6.40 | 0.96           | 0.96 | 0.96 | 0.96               | 0.96 | 0.96 | 0.96           | 0.96 | 0.96               | 0.96 |

TABLE 2 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV**       |      |                    | **LDDV** |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------------|------|--------------------|----------|----------------|------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 5.93           | 5.93 | 5.93               | 0.78     | 0.78           | 0.78 | 0.78               | 0.78 |
| 1987             | 0.0                           | 27.3  | 0.0   | 5.93           | 5.93 | 5.93               | 0.72     | 0.72           | 0.72 | 0.72               | 0.72 |
| 1987             | 0.0                           | 100.0 | 0.0   | 5.93           | 5.93 | 5.93               | 0.58     | 0.58           | 0.58 | 0.58               | 0.58 |
| 1987             | 20.6                          | 0.0   | 20.6  | 5.93           | 5.93 | 5.93               | 0.80     | 0.80           | 0.80 | 0.80               | 0.80 |
| 1987             | 20.6                          | 27.3  | 20.6  | 5.93           | 5.93 | 5.93               | 0.75     | 0.75           | 0.75 | 0.75               | 0.75 |
| 1987             | 100.0                         | 0.0   | 100.0 | 5.93           | 5.93 | 5.93               | 0.90     | 0.90           | 0.90 | 0.90               | 0.90 |
| 1990             | 0.0                           | 0.0   | 0.0   | 5.54           | 5.54 | 5.54               | 0.79     | 0.79           | 0.79 | 0.79               | 0.79 |
| 1990             | 0.0                           | 27.3  | 0.0   | 5.54           | 5.54 | 5.54               | 0.73     | 0.73           | 0.73 | 0.73               | 0.73 |
| 1990             | 0.0                           | 100.0 | 0.0   | 5.54           | 5.54 | 5.54               | 0.59     | 0.59           | 0.59 | 0.59               | 0.59 |
| 1990             | 20.6                          | 0.0   | 20.6  | 5.54           | 5.54 | 5.54               | 0.81     | 0.81           | 0.81 | 0.81               | 0.81 |
| 1990             | 20.6                          | 27.3  | 20.6  | 5.54           | 5.54 | 5.54               | 0.76     | 0.76           | 0.76 | 0.76               | 0.76 |
| 1990             | 100.0                         | 0.0   | 100.0 | 5.54           | 5.54 | 5.54               | 0.91     | 0.91           | 0.91 | 0.91               | 0.91 |
| 1995             | 0.0                           | 0.0   | 0.0   | 5.27           | 5.27 | 5.27               | 0.83     | 0.83           | 0.83 | 0.83               | 0.83 |
| 1995             | 0.0                           | 27.3  | 0.0   | 5.27           | 5.27 | 5.27               | 0.77     | 0.77           | 0.77 | 0.77               | 0.77 |
| 1995             | 0.0                           | 100.0 | 0.0   | 5.27           | 5.27 | 5.27               | 0.63     | 0.63           | 0.63 | 0.63               | 0.63 |
| 1995             | 20.6                          | 0.0   | 20.6  | 5.27           | 5.27 | 5.27               | 0.85     | 0.85           | 0.85 | 0.85               | 0.85 |
| 1995             | 20.6                          | 27.3  | 20.6  | 5.27           | 5.27 | 5.27               | 0.80     | 0.80           | 0.80 | 0.80               | 0.80 |
| 1995             | 100.0                         | 0.0   | 100.0 | 5.27           | 5.27 | 5.27               | 0.96     | 0.96           | 0.96 | 0.96               | 0.96 |

TABLE 2 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>25F | 50F   | TEMPERATURE |       | 100F  | OF   | AMBIENT<br>25F | **LDDT** |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|----------------|-------|-------------|-------|-------|------|----------------|----------|------|-------------|------|
|                  | PCCH                          | PCHC  | PCCC  |                |       | 75F         | 75F   |       |      |                | 50F      | 75F  | 75F         | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 51.50          | 38.58 | 34.97       | 34.97 | 36.47 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 51.50          | 38.58 | 34.97       | 34.97 | 36.47 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 51.50          | 38.58 | 34.97       | 34.97 | 36.47 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 51.50          | 38.58 | 34.97       | 34.97 | 36.47 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 51.50          | 38.58 | 34.97       | 34.97 | 36.47 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 51.50          | 38.58 | 34.97       | 34.97 | 36.47 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 39.28          | 30.70 | 28.23       | 28.23 | 30.00 | 1.47 | 1.47           | 1.47     | 1.47 | 1.47        | 1.47 |
| 1980             | 0.0                           | 27.3  | 0.0   | 39.28          | 30.70 | 28.23       | 28.23 | 30.00 | 1.34 | 1.34           | 1.34     | 1.34 | 1.34        | 1.34 |
| 1980             | 0.0                           | 100.0 | 0.0   | 39.28          | 30.70 | 28.23       | 28.23 | 30.00 | 1.01 | 1.01           | 1.01     | 1.01 | 1.01        | 1.01 |
| 1980             | 20.6                          | 0.0   | 20.6  | 39.28          | 30.70 | 28.23       | 28.23 | 30.00 | 1.51 | 1.51           | 1.51     | 1.51 | 1.51        | 1.51 |
| 1980             | 20.6                          | 27.3  | 20.6  | 39.28          | 30.70 | 28.23       | 28.23 | 30.00 | 1.39 | 1.39           | 1.39     | 1.39 | 1.39        | 1.39 |
| 1980             | 100.0                         | 0.0   | 100.0 | 39.28          | 30.70 | 28.23       | 28.23 | 30.00 | 1.67 | 1.67           | 1.67     | 1.67 | 1.67        | 1.67 |
| 1982             | 0.0                           | 0.0   | 0.0   | 32.35          | 25.84 | 23.95       | 23.95 | 25.69 | 1.54 | 1.54           | 1.54     | 1.54 | 1.54        | 1.54 |
| 1982             | 0.0                           | 27.3  | 0.0   | 32.35          | 25.84 | 23.95       | 23.95 | 25.69 | 1.42 | 1.42           | 1.42     | 1.42 | 1.42        | 1.42 |
| 1982             | 0.0                           | 100.0 | 0.0   | 32.35          | 25.84 | 23.95       | 23.95 | 25.69 | 1.09 | 1.09           | 1.09     | 1.09 | 1.09        | 1.09 |
| 1982             | 20.6                          | 0.0   | 20.6  | 32.35          | 25.84 | 23.95       | 23.95 | 25.69 | 1.59 | 1.59           | 1.59     | 1.59 | 1.59        | 1.59 |
| 1982             | 20.6                          | 27.3  | 20.6  | 32.35          | 25.84 | 23.95       | 23.95 | 25.69 | 1.46 | 1.46           | 1.46     | 1.46 | 1.46        | 1.46 |
| 1982             | 100.0                         | 0.0   | 100.0 | 32.35          | 25.84 | 23.95       | 23.95 | 25.69 | 1.76 | 1.76           | 1.76     | 1.76 | 1.76        | 1.76 |



TABLE 2 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|------|---------|------|------|-------------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | OF      | 25F   | 50F   | 75F         | 100F  | OF   | 25F     | 50F  | 75F  | 100F        | OF   | 25F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 17.13   | 15.29 | 13.70 | 12.72       | 14.04 | 1.37 | 1.37    | 1.37 | 1.37 | 1.37        | 1.37 | 1.37 |
| 1987             | 0.0                           | 27.3  | 0.0   | 17.13   | 15.29 | 13.70 | 12.72       | 14.04 | 1.28 | 1.28    | 1.28 | 1.28 | 1.28        | 1.28 | 1.28 |
| 1987             | 0.0                           | 100.0 | 0.0   | 17.13   | 15.29 | 13.70 | 12.72       | 14.04 | 1.03 | 1.03    | 1.03 | 1.03 | 1.03        | 1.03 | 1.03 |
| 1987             | 20.6                          | 0.0   | 20.6  | 17.13   | 15.29 | 13.70 | 12.72       | 14.04 | 1.42 | 1.42    | 1.42 | 1.42 | 1.42        | 1.42 | 1.42 |
| 1987             | 20.6                          | 27.3  | 20.6  | 17.13   | 15.29 | 13.70 | 12.72       | 14.04 | 1.32 | 1.32    | 1.32 | 1.32 | 1.32        | 1.32 | 1.32 |
| 1987             | 100.0                         | 0.0   | 100.0 | 17.13   | 15.29 | 13.70 | 12.72       | 14.04 | 1.59 | 1.59    | 1.59 | 1.59 | 1.59        | 1.59 | 1.59 |
| 1990             | 0.0                           | 0.0   | 0.0   | 12.27   | 10.58 | 9.19  | 8.35        | 9.34  | 1.33 | 1.33    | 1.33 | 1.33 | 1.33        | 1.33 | 1.33 |
| 1990             | 0.0                           | 27.3  | 0.0   | 12.27   | 10.58 | 9.19  | 8.35        | 9.34  | 1.24 | 1.24    | 1.24 | 1.24 | 1.24        | 1.24 | 1.24 |
| 1990             | 0.0                           | 100.0 | 0.0   | 12.27   | 10.58 | 9.19  | 8.35        | 9.34  | 1.01 | 1.01    | 1.01 | 1.01 | 1.01        | 1.01 | 1.01 |
| 1990             | 20.6                          | 0.0   | 20.6  | 12.27   | 10.58 | 9.19  | 8.35        | 9.34  | 1.38 | 1.38    | 1.38 | 1.38 | 1.38        | 1.38 | 1.38 |
| 1990             | 20.6                          | 27.3  | 20.6  | 12.27   | 10.58 | 9.19  | 8.35        | 9.34  | 1.29 | 1.29    | 1.29 | 1.29 | 1.29        | 1.29 | 1.29 |
| 1990             | 100.0                         | 0.0   | 100.0 | 12.27   | 10.58 | 9.19  | 8.35        | 9.34  | 1.54 | 1.54    | 1.54 | 1.54 | 1.54        | 1.54 | 1.54 |
| 1995             | 0.0                           | 0.0   | 0.0   | 9.28    | 7.64  | 6.33  | 5.56        | 6.24  | 1.40 | 1.40    | 1.40 | 1.40 | 1.40        | 1.40 | 1.40 |
| 1995             | 0.0                           | 27.3  | 0.0   | 9.28    | 7.64  | 6.33  | 5.56        | 6.24  | 1.31 | 1.31    | 1.31 | 1.31 | 1.31        | 1.31 | 1.31 |
| 1995             | 0.0                           | 100.0 | 0.0   | 9.28    | 7.64  | 6.33  | 5.56        | 6.24  | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |
| 1995             | 20.6                          | 0.0   | 20.6  | 9.28    | 7.64  | 6.33  | 5.56        | 6.24  | 1.44 | 1.44    | 1.44 | 1.44 | 1.44        | 1.44 | 1.44 |
| 1995             | 20.6                          | 27.3  | 20.6  | 9.28    | 7.64  | 6.33  | 5.56        | 6.24  | 1.36 | 1.36    | 1.36 | 1.36 | 1.36        | 1.36 | 1.36 |
| 1995             | 100.0                         | 0.0   | 100.0 | 9.28    | 7.64  | 6.33  | 5.56        | 6.24  | 1.62 | 1.62    | 1.62 | 1.62 | 1.62        | 1.62 | 1.62 |

SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |       |       |       |
|------------------|-------------------------------|-------|-------|-------|-----------------------------------------------------------------|-------|-------|-------|
|                  | PCCM                          | PCMC  | PCCC  |       | AMBIENT<br>25F                                                  | 50F   | 75F   | 100F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 14.23 | 13.47                                                           | 12.80 | 12.36 | 12.66 |
| 1975             | 0.0                           | 27.3  | 0.0   | 18.55 | 12.95                                                           | 12.42 | 12.09 | 12.55 |
| 1975             | 0.0                           | 100.0 | 0.0   | 11.74 | 11.54                                                           | 11.41 | 11.36 | 12.23 |
| 1975             | 20.6                          | 0.0   | 20.6  | 22.87 | 17.72                                                           | 14.54 | 13.02 | 12.93 |
| 1975             | 20.6                          | 27.3  | 20.6  | 22.19 | 17.19                                                           | 14.16 | 12.75 | 12.81 |
| 1975             | 100.0                         | 0.0   | 100.0 | 56.17 | 34.09                                                           | 21.25 | 15.59 | 13.95 |
| 1980             | 0.0                           | 0.0   | 0.0   | 10.01 | 9.14                                                            | 8.41  | 7.96  | 8.78  |
| 1980             | 0.0                           | 27.3  | 0.0   | 9.33  | 8.66                                                            | 8.11  | 7.79  | 8.67  |
| 1980             | 0.0                           | 100.0 | 0.0   | 7.51  | 7.40                                                            | 7.34  | 7.32  | 8.38  |
| 1980             | 20.6                          | 0.0   | 20.6  | 16.43 | 12.32                                                           | 9.77  | 8.57  | 8.99  |
| 1980             | 20.6                          | 27.3  | 20.6  | 15.75 | 11.84                                                           | 9.48  | 8.40  | 8.88  |
| 1980             | 100.0                         | 0.0   | 100.0 | 41.20 | 24.58                                                           | 15.05 | 10.91 | 9.80  |
| 1982             | 0.0                           | 0.0   | 0.0   | 8.60  | 7.66                                                            | 6.90  | 6.44  | 7.41  |
| 1982             | 0.0                           | 27.3  | 0.0   | 7.89  | 7.18                                                            | 6.60  | 6.26  | 7.23  |
| 1982             | 0.0                           | 100.0 | 0.0   | 6.01  | 5.89                                                            | 5.81  | 5.77  | 6.77  |
| 1982             | 20.6                          | 0.0   | 20.6  | 13.83 | 10.23                                                           | 7.99  | 6.93  | 7.52  |
| 1982             | 20.6                          | 27.3  | 20.6  | 13.12 | 9.74                                                            | 7.69  | 6.74  | 7.34  |
| 1982             | 100.0                         | 0.0   | 100.0 | 33.99 | 20.11                                                           | 12.21 | 8.81  | 7.94  |



TABLE 2 (Continued)  
 SENSITIVITY OF THE MONITEZ EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | IF    | COMPOSITE EMISSION FACTORS FOR THE LIGHT VEHICLE TYPES COMBINED |      |      |
|------------------|-------------------------------|-------|-------|-------|-----------------------------------------------------------------|------|------|
|                  | PCCN                          | PCHC  | PCCC  |       | AMBIENT<br>25F                                                  | 50F  | 75F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 5.56  | 4.79                                                            | 4.16 | 3.74 |
| 1987             | 0.0                           | 27.3  | 0.0   | 5.06  | 4.46                                                            | 3.95 | 3.66 |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.74  | 3.57                                                            | 3.41 | 3.32 |
| 1987             | 20.6                          | 0.0   | 20.6  | 8.52  | 6.18                                                            | 4.71 | 4.00 |
| 1987             | 20.6                          | 27.3  | 20.6  | 8.03  | 5.84                                                            | 4.51 | 3.98 |
| 1987             | 100.0                         | 0.0   | 100.0 | 19.93 | 11.51                                                           | 6.83 | 4.85 |
| 1990             | 0.0                           | 0.0   | 0.0   | 4.18  | 3.61                                                            | 3.13 | 2.85 |
| 1990             | 0.0                           | 27.3  | 0.0   | 3.88  | 3.41                                                            | 3.01 | 2.78 |
| 1990             | 0.0                           | 100.0 | 0.0   | 3.09  | 2.88                                                            | 2.70 | 2.59 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.13  | 4.51                                                            | 3.46 | 2.95 |
| 1990             | 20.6                          | 27.3  | 20.6  | 5.89  | 4.31                                                            | 3.34 | 2.88 |
| 1990             | 100.0                         | 0.0   | 100.0 | 13.96 | 8.01                                                            | 4.73 | 3.36 |
| 1995             | 0.0                           | 0.0   | 0.0   | 3.07  | 2.69                                                            | 2.36 | 2.17 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.95  | 2.61                                                            | 2.32 | 2.15 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.62  | 2.41                                                            | 2.22 | 2.10 |
| 1995             | 20.6                          | 0.0   | 20.6  | 4.35  | 3.23                                                            | 2.51 | 2.19 |
| 1995             | 20.6                          | 27.3  | 20.6  | 4.23  | 3.15                                                            | 2.49 | 2.17 |
| 1995             | 100.0                         | 0.0   | 100.0 | 9.30  | 5.31                                                            | 3.15 | 2.26 |
|                  |                               |       |       |       |                                                                 |      | 2.46 |

TABLE 3  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **LOGV** |       |       | TEMPERATURE |      |       | **LOGT** |       |       | TEMPERATURE<br>75F | 100F  | 0F    | AMBIENT<br>25F | 50F   | 100F  |
|------------------|-------------------------------|-------|-------|----------|-------|-------|-------------|------|-------|----------|-------|-------|--------------------|-------|-------|----------------|-------|-------|
|                  | PCCM                          | PCMC  | PCCC  | OF       | 25F   | 50F   | 75F         | 100F | 0F    | 25F      | 50F   | 100F  |                    |       |       |                |       |       |
| 1975             | 0.0                           | 0.0   | 0.0   | 8.05     | 7.78  | 7.52  | 7.35        | 7.49 | 8.62  | 8.33     | 8.05  | 7.87  | 8.05               | 8.05  | 8.05  | 8.05           | 8.05  | 8.05  |
| 1975             | 0.0                           | 27.3  | 0.0   | 7.65     | 7.46  | 7.29  | 7.18        | 7.41 | 8.20  | 8.00     | 7.83  | 7.75  | 7.83               | 7.83  | 7.83  | 7.83           | 7.83  | 7.83  |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.56     | 6.61  | 6.67  | 6.73        | 7.20 | 7.06  | 7.14     | 7.25  | 7.34  | 7.25               | 7.25  | 7.25  | 7.25           | 7.25  | 7.25  |
| 1975             | 20.6                          | 0.0   | 20.6  | 13.21    | 10.31 | 8.56  | 7.74        | 7.64 | 14.30 | 11.11    | 9.20  | 8.32  | 9.20               | 9.20  | 9.20  | 9.20           | 9.20  | 9.20  |
| 1975             | 20.6                          | 27.3  | 20.6  | 12.80    | 9.99  | 8.33  | 7.57        | 7.56 | 13.87 | 10.79    | 8.98  | 8.17  | 8.98               | 8.98  | 8.98  | 8.98           | 8.98  | 8.98  |
| 1975             | 100.0                         | 0.0   | 100.0 | 33.08    | 20.08 | 12.55 | 9.26        | 8.23 | 36.17 | 21.63    | 13.62 | 10.05 | 13.62              | 13.62 | 13.62 | 13.62          | 13.62 | 13.62 |
| 1980             | 0.0                           | 0.0   | 0.0   | 5.44     | 5.01  | 4.65  | 4.44        | 4.91 | 5.79  | 5.39     | 5.05  | 4.84  | 5.05               | 5.05  | 5.05  | 5.05           | 5.05  | 5.05  |
| 1980             | 0.0                           | 27.3  | 0.0   | 5.02     | 4.71  | 4.47  | 4.33        | 4.84 | 5.38  | 5.10     | 4.88  | 4.75  | 4.88               | 4.88  | 4.88  | 4.88           | 4.88  | 4.88  |
| 1980             | 0.0                           | 100.0 | 0.0   | 3.89     | 3.93  | 3.99  | 4.03        | 4.64 | 4.27  | 4.34     | 4.44  | 4.52  | 4.44               | 4.44  | 4.44  | 4.44           | 4.44  | 4.44  |
| 1980             | 20.6                          | 0.0   | 20.6  | 9.34     | 6.94  | 5.48  | 4.81        | 5.03 | 9.97  | 7.46     | 5.95  | 5.25  | 5.95               | 5.95  | 5.95  | 5.95           | 5.95  | 5.95  |
| 1980             | 20.6                          | 27.3  | 20.6  | 8.92     | 6.65  | 5.30  | 4.70        | 4.96 | 9.55  | 7.18     | 5.78  | 5.16  | 5.78               | 5.78  | 5.78  | 5.78           | 5.78  | 5.78  |
| 1980             | 100.0                         | 0.0   | 100.0 | 24.38    | 14.38 | 8.69  | 6.23        | 5.50 | 26.07 | 15.47    | 9.42  | 6.80  | 9.42               | 9.42  | 9.42  | 9.42           | 9.42  | 9.42  |
| 1982             | 0.0                           | 0.0   | 0.0   | 4.73     | 4.23  | 3.81  | 3.57        | 4.15 | 4.74  | 4.24     | 3.83  | 3.59  | 3.83               | 3.83  | 3.83  | 3.83           | 3.83  | 3.83  |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.28     | 3.92  | 3.62  | 3.45        | 4.03 | 4.32  | 3.96     | 3.67  | 3.50  | 3.67               | 3.67  | 3.67  | 3.67           | 3.67  | 3.67  |
| 1982             | 0.0                           | 100.0 | 0.0   | 3.08     | 3.10  | 3.12  | 3.14        | 3.72 | 3.19  | 3.20     | 3.22  | 3.25  | 3.22               | 3.22  | 3.22  | 3.22           | 3.22  | 3.22  |
| 1982             | 20.6                          | 0.0   | 20.6  | 7.98     | 5.82  | 4.49  | 3.87        | 4.21 | 8.10  | 5.90     | 4.55  | 3.92  | 4.55               | 4.55  | 4.55  | 4.55           | 4.55  | 4.55  |
| 1982             | 20.6                          | 27.3  | 20.6  | 7.53     | 5.51  | 4.30  | 3.75        | 4.09 | 7.68  | 5.61     | 4.38  | 3.83  | 4.38               | 4.38  | 4.38  | 4.38           | 4.38  | 4.38  |
| 1982             | 100.0                         | 0.0   | 100.0 | 20.51    | 11.95 | 7.11  | 5.04        | 4.46 | 21.05 | 12.28    | 7.52  | 5.19  | 7.52               | 7.52  | 7.52  | 7.52           | 7.52  | 7.52  |

TABLE 3 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |       | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|-------|---------|------|------|-------------|------|------|
|                  | PCCH                          | PCMC  | PCCC  | OF      | 25F  | 50F  | 75F         | 100F | OF    | 25F     | 50F  | 75F  | 100F        | 25F  | 50F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 3.22    | 2.74 | 2.35 | 2.12        | 2.57 | 3.06  | 2.61    | 2.25 | 2.04 | 2.54        | 2.61 | 2.25 |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.89    | 2.52 | 2.21 | 2.03        | 2.47 | 2.71  | 2.38    | 2.11 | 1.96 | 2.43        | 2.38 | 2.11 |
| 1987             | 0.0                           | 100.0 | 0.0   | 2.00    | 1.92 | 1.86 | 1.91        | 2.21 | 1.80  | 1.77    | 1.74 | 1.73 | 2.14        | 1.77 | 1.74 |
| 1987             | 20.6                          | 0.0   | 20.6  | 5.17    | 3.64 | 2.70 | 2.25        | 2.59 | 5.15  | 3.62    | 2.67 | 2.23 | 2.56        | 3.62 | 2.67 |
| 1987             | 20.6                          | 27.3  | 20.6  | 4.84    | 3.42 | 2.57 | 2.17        | 2.48 | 4.81  | 3.39    | 2.54 | 2.14 | 2.45        | 3.39 | 2.54 |
| 1987             | 100.0                         | 0.0   | 100.0 | 12.69   | 7.13 | 4.06 | 2.78        | 2.59 | 13.22 | 7.50    | 4.31 | 2.97 | 2.67        | 7.50 | 4.31 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.49    | 2.13 | 1.83 | 1.65        | 1.89 | 2.24  | 1.90    | 1.63 | 1.46 | 1.80        | 1.90 | 1.63 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.29    | 2.00 | 1.75 | 1.60        | 1.85 | 2.31  | 1.75    | 1.53 | 1.41 | 1.73        | 1.75 | 1.53 |
| 1990             | 0.0                           | 100.0 | 0.0   | 1.75    | 1.64 | 1.54 | 1.48        | 1.75 | 1.39  | 1.34    | 1.29 | 1.26 | 1.55        | 1.34 | 1.29 |
| 1990             | 20.6                          | 0.0   | 20.6  | 3.88    | 2.74 | 2.04 | 1.71        | 1.90 | 3.75  | 2.62    | 1.92 | 1.59 | 1.83        | 2.62 | 1.92 |
| 1990             | 20.6                          | 27.3  | 20.6  | 3.68    | 2.61 | 1.96 | 1.66        | 1.86 | 3.52  | 2.46    | 1.83 | 1.53 | 1.76        | 2.46 | 1.83 |
| 1990             | 100.0                         | 0.0   | 100.0 | 9.24    | 5.12 | 2.87 | 1.94        | 1.93 | 9.58  | 5.37    | 3.05 | 2.08 | 1.96        | 5.37 | 3.05 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.87    | 1.63 | 1.42 | 1.29        | 1.33 | 1.47  | 1.25    | 1.09 | 0.97 | 1.11        | 1.25 | 1.09 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.79    | 1.58 | 1.39 | 1.28        | 1.36 | 1.36  | 1.19    | 1.04 | 0.95 | 1.09        | 1.19 | 1.04 |
| 1995             | 0.0                           | 100.0 | 0.0   | 1.57    | 1.45 | 1.34 | 1.26        | 1.42 | 1.07  | 1.00    | 0.94 | 0.90 | 1.06        | 1.00 | 0.94 |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.80    | 2.01 | 1.52 | 1.28        | 1.35 | 2.45  | 1.70    | 1.25 | 1.04 | 1.15        | 1.70 | 1.25 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.72    | 1.96 | 1.50 | 1.28        | 1.37 | 2.35  | 1.64    | 1.21 | 1.02 | 1.14        | 1.64 | 1.21 |
| 1995             | 100.0                         | 0.0   | 100.0 | 6.40    | 3.47 | 1.91 | 1.27        | 1.42 | 6.26  | 3.44    | 1.92 | 1.29 | 1.33        | 3.44 | 1.92 |

TABLE 3 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | AMBIENT<br>TEMPERATURE |      | AMBIENT<br>TEMPERATURE |      | AMBIENT<br>TEMPERATURE |      | AMBIENT<br>TEMPERATURE |      | AMBIENT<br>TEMPERATURE |      |
|------------------|-------------------------------|-------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|------------------------|------|
|                  | PCCH                          | PCHC  | PCCC                   | 0F   | 25F                    | 50F  | 75F                    | 100F | 0F                     | 25F  | 50F                    | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.45                   | 0.45 | 0.45                   | 0.45 |
| 1975             | 0.0                           | 27.3  | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.41                   | 0.41 | 0.41                   | 0.41 |
| 1975             | 0.0                           | 100.0 | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.30                   | 0.30 | 0.30                   | 0.30 |
| 1975             | 20.6                          | 0.0   | 20.6                   | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.46                   | 0.46 | 0.46                   | 0.46 |
| 1975             | 20.6                          | 27.3  | 20.6                   | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.42                   | 0.42 | 0.42                   | 0.42 |
| 1975             | 100.0                         | 0.0   | 100.0                  | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.51                   | 0.51 | 0.51                   | 0.51 |
| 1980             | 0.0                           | 0.0   | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.74                   | 0.74 | 0.74                   | 0.74 |
| 1980             | 0.0                           | 27.3  | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.68                   | 0.68 | 0.68                   | 0.68 |
| 1980             | 0.0                           | 100.0 | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.51                   | 0.51 | 0.51                   | 0.51 |
| 1980             | 20.6                          | 0.0   | 20.6                   | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.76                   | 0.76 | 0.76                   | 0.76 |
| 1980             | 20.6                          | 27.3  | 20.6                   | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.70                   | 0.70 | 0.70                   | 0.70 |
| 1980             | 100.0                         | 0.0   | 100.0                  | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.84                   | 0.84 | 0.84                   | 0.84 |
| 1982             | 0.0                           | 0.0   | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.56                   | 0.56 | 0.56                   | 0.56 |
| 1982             | 0.0                           | 27.3  | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.52                   | 0.52 | 0.52                   | 0.52 |
| 1982             | 0.0                           | 100.0 | 0.0                    | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.40                   | 0.40 | 0.40                   | 0.40 |
| 1982             | 20.6                          | 0.0   | 20.6                   | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.58                   | 0.58 | 0.58                   | 0.58 |
| 1982             | 20.6                          | 27.3  | 20.6                   | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.54                   | 0.54 | 0.54                   | 0.54 |
| 1982             | 100.0                         | 0.0   | 100.0                  | 4.28 | 4.28                   | 4.28 | 4.28                   | 4.28 | 0.64                   | 0.64 | 0.64                   | 0.64 |

TABLE 3 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      |                    | **LODV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 3.96     | 3.96           | 3.96 | 3.96               | 3.96     | 0.52 | 0.52           | 0.52 | 0.52               | 0.52 |
| 1987             | 0.0                           | 27.3  | 0.0   | 3.96     | 3.96           | 3.96 | 3.96               | 3.96     | 0.48 | 0.48           | 0.48 | 0.48               | 0.48 |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.96     | 3.96           | 3.96 | 3.96               | 3.96     | 0.39 | 0.39           | 0.39 | 0.39               | 0.39 |
| 1987             | 20.6                          | 0.0   | 20.6  | 3.96     | 3.96           | 3.96 | 3.96               | 3.96     | 0.54 | 0.54           | 0.54 | 0.54               | 0.54 |
| 1987             | 20.6                          | 27.3  | 20.6  | 3.96     | 3.96           | 3.96 | 3.96               | 3.96     | 0.50 | 0.50           | 0.50 | 0.50               | 0.50 |
| 1987             | 100.0                         | 0.0   | 100.0 | 3.96     | 3.96           | 3.96 | 3.96               | 3.96     | 0.60 | 0.60           | 0.60 | 0.60               | 0.60 |
| 1990             | 0.0                           | 0.0   | 0.0   | 3.70     | 3.70           | 3.70 | 3.70               | 3.70     | 0.53 | 0.53           | 0.53 | 0.53               | 0.53 |
| 1990             | 0.0                           | 27.3  | 0.0   | 3.70     | 3.70           | 3.70 | 3.70               | 3.70     | 0.49 | 0.49           | 0.49 | 0.49               | 0.49 |
| 1990             | 0.0                           | 100.0 | 0.0   | 3.70     | 3.70           | 3.70 | 3.70               | 3.70     | 0.39 | 0.39           | 0.39 | 0.39               | 0.39 |
| 1990             | 20.6                          | 0.0   | 20.6  | 3.70     | 3.70           | 3.70 | 3.70               | 3.70     | 0.54 | 0.54           | 0.54 | 0.54               | 0.54 |
| 1990             | 20.6                          | 27.3  | 20.6  | 3.70     | 3.70           | 3.70 | 3.70               | 3.70     | 0.51 | 0.51           | 0.51 | 0.51               | 0.51 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.70     | 3.70           | 3.70 | 3.70               | 3.70     | 0.61 | 0.61           | 0.61 | 0.61               | 0.61 |
| 1995             | 0.0                           | 0.0   | 0.0   | 3.52     | 3.52           | 3.52 | 3.52               | 3.52     | 0.55 | 0.55           | 0.55 | 0.55               | 0.55 |
| 1995             | 0.0                           | 27.3  | 0.0   | 3.52     | 3.52           | 3.52 | 3.52               | 3.52     | 0.52 | 0.52           | 0.52 | 0.52               | 0.52 |
| 1995             | 0.0                           | 100.0 | 0.0   | 3.52     | 3.52           | 3.52 | 3.52               | 3.52     | 0.42 | 0.42           | 0.42 | 0.42               | 0.42 |
| 1995             | 20.6                          | 0.0   | 20.6  | 3.52     | 3.52           | 3.52 | 3.52               | 3.52     | 0.57 | 0.57           | 0.57 | 0.57               | 0.57 |
| 1995             | 20.6                          | 27.3  | 20.6  | 3.52     | 3.52           | 3.52 | 3.52               | 3.52     | 0.54 | 0.54           | 0.54 | 0.54               | 0.54 |
| 1995             | 100.0                         | 0.0   | 100.0 | 3.52     | 3.52           | 3.52 | 3.52               | 3.52     | 0.64 | 0.64           | 0.64 | 0.64               | 0.64 |

TABLE 3 (Continued)  
SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6...MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF    | AMBIENT |       |       | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|-------|---------|-------|-------|-------------|------|------|---------|------|------|-------------|------|------|
|                  | PCCH                          | PCMC  | PCCC  |       | 25F     | 50F   | 75F   | 100F        | OF   | 25F  | 50F     | 75F  | 100F | OF          | 25F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 27.87 | 24.38   | 21.42 | 19.62 | 20.37       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 27.87 | 24.38   | 21.42 | 19.62 | 20.37       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 27.87 | 24.38   | 21.42 | 19.62 | 20.37       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 27.87 | 24.38   | 21.42 | 19.62 | 20.37       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 27.87 | 24.38   | 21.42 | 19.62 | 20.37       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 27.87 | 24.38   | 21.42 | 19.62 | 20.37       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 21.38 | 19.08   | 17.10 | 15.86 | 16.75       | 0.98 | 0.98 | 0.98    | 0.98 | 0.98 | 0.98        | 0.98 | 0.98 |
| 1980             | 0.0                           | 27.3  | 0.0   | 21.38 | 19.08   | 17.10 | 15.86 | 16.75       | 0.98 | 0.98 | 0.98    | 0.98 | 0.98 | 0.98        | 0.98 | 0.98 |
| 1980             | 0.0                           | 100.0 | 0.0   | 21.38 | 19.08   | 17.10 | 15.86 | 16.75       | 0.98 | 0.98 | 0.98    | 0.98 | 0.98 | 0.98        | 0.98 | 0.98 |
| 1980             | 20.6                          | 0.0   | 20.6  | 21.38 | 19.08   | 17.10 | 15.86 | 16.75       | 1.01 | 1.01 | 1.01    | 1.01 | 1.01 | 1.01        | 1.01 | 1.01 |
| 1980             | 20.6                          | 27.3  | 20.6  | 21.38 | 19.08   | 17.10 | 15.86 | 16.75       | 0.93 | 0.93 | 0.93    | 0.93 | 0.93 | 0.93        | 0.93 | 0.93 |
| 1980             | 100.0                         | 0.0   | 100.0 | 21.38 | 19.08   | 17.10 | 15.86 | 16.75       | 1.12 | 1.12 | 1.12    | 1.12 | 1.12 | 1.12        | 1.12 | 1.12 |
| 1982             | 0.0                           | 0.0   | 0.0   | 17.84 | 16.11   | 14.59 | 13.65 | 14.52       | 1.03 | 1.03 | 1.03    | 1.03 | 1.03 | 1.03        | 1.03 | 1.03 |
| 1982             | 0.0                           | 27.3  | 0.0   | 17.84 | 16.11   | 14.59 | 13.65 | 14.52       | 0.95 | 0.95 | 0.95    | 0.95 | 0.95 | 0.95        | 0.95 | 0.95 |
| 1982             | 0.0                           | 100.0 | 0.0   | 17.84 | 16.11   | 14.59 | 13.65 | 14.52       | 0.73 | 0.73 | 0.73    | 0.73 | 0.73 | 0.73        | 0.73 | 0.73 |
| 1982             | 20.6                          | 0.0   | 20.6  | 17.84 | 16.11   | 14.59 | 13.65 | 14.52       | 1.06 | 1.06 | 1.06    | 1.06 | 1.06 | 1.06        | 1.06 | 1.06 |
| 1982             | 20.6                          | 27.3  | 20.6  | 17.84 | 16.11   | 14.59 | 13.65 | 14.52       | 0.98 | 0.98 | 0.98    | 0.98 | 0.98 | 0.98        | 0.98 | 0.98 |
| 1982             | 100.0                         | 0.0   | 100.0 | 17.84 | 16.11   | 14.59 | 13.65 | 14.52       | 1.18 | 1.18 | 1.18    | 1.18 | 1.18 | 1.18        | 1.18 | 1.18 |



TABLE 3 (Continued)  
 SENSITIVITY OF THE MORILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HMOV** |                |      | **LODT**           |      |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 9.46     | 8.55           | 7.75 | 7.27               | 7.92 | 0.92 | 0.92           | 0.92 | 0.92               | 0.92 |
| 1987             | 0.0                           | 27.3  | 0.0   | 9.46     | 8.55           | 7.75 | 7.27               | 7.92 | 0.85 | 0.85           | 0.85 | 0.85               | 0.85 |
| 1987             | 0.0                           | 100.0 | 0.0   | 9.46     | 8.55           | 7.75 | 7.27               | 7.92 | 0.69 | 0.69           | 0.69 | 0.69               | 0.69 |
| 1987             | 20.6                          | 0.0   | 20.6  | 9.46     | 8.55           | 7.75 | 7.27               | 7.92 | 0.95 | 0.95           | 0.95 | 0.95               | 0.95 |
| 1987             | 20.6                          | 27.3  | 20.6  | 9.46     | 8.55           | 7.75 | 7.27               | 7.92 | 0.88 | 0.88           | 0.88 | 0.88               | 0.88 |
| 1987             | 100.0                         | 0.0   | 100.0 | 9.46     | 8.55           | 7.75 | 7.27               | 7.92 | 1.06 | 1.06           | 1.06 | 1.06               | 1.06 |
| 1990             | 0.0                           | 0.0   | 0.0   | 6.59     | 5.75           | 5.05 | 4.64               | 5.13 | 0.89 | 0.89           | 0.89 | 0.89               | 0.89 |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.59     | 5.75           | 5.05 | 4.64               | 5.13 | 0.83 | 0.83           | 0.83 | 0.83               | 0.83 |
| 1990             | 0.0                           | 100.0 | 0.0   | 6.59     | 5.75           | 5.05 | 4.64               | 5.13 | 0.67 | 0.67           | 0.67 | 0.67               | 0.67 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.59     | 5.75           | 5.05 | 4.64               | 5.13 | 0.92 | 0.92           | 0.92 | 0.92               | 0.92 |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.59     | 5.75           | 5.05 | 4.64               | 5.13 | 0.86 | 0.86           | 0.86 | 0.86               | 0.86 |
| 1990             | 100.0                         | 0.0   | 100.0 | 6.59     | 5.75           | 5.05 | 4.64               | 5.13 | 1.03 | 1.03           | 1.03 | 1.03               | 1.03 |
| 1995             | 0.0                           | 0.0   | 0.0   | 4.84     | 4.02           | 3.37 | 2.98               | 3.32 | 0.93 | 0.93           | 0.93 | 0.93               | 0.93 |
| 1995             | 0.0                           | 27.3  | 0.0   | 4.84     | 4.02           | 3.37 | 2.98               | 3.32 | 0.88 | 0.88           | 0.88 | 0.88               | 0.88 |
| 1995             | 0.0                           | 100.0 | 0.0   | 4.84     | 4.02           | 3.37 | 2.98               | 3.32 | 0.72 | 0.72           | 0.72 | 0.72               | 0.72 |
| 1995             | 20.6                          | 0.0   | 20.6  | 4.84     | 4.02           | 3.37 | 2.98               | 3.32 | 0.96 | 0.96           | 0.96 | 0.96               | 0.96 |
| 1995             | 20.6                          | 27.3  | 20.6  | 4.84     | 4.02           | 3.37 | 2.98               | 3.32 | 0.91 | 0.91           | 0.91 | 0.91               | 0.91 |
| 1995             | 100.0                         | 0.0   | 100.0 | 4.84     | 4.02           | 3.37 | 2.98               | 3.32 | 1.08 | 1.08           | 1.08 | 1.08               | 1.08 |

TABLE 3 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | HF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE<br>TYPES COMBINED |       |      |      |  |
|------------------|-------------------------------|-------|-------|-------|--------------------------------------------------------------------|-------|------|------|--|
|                  | PCCN                          | PCMC  | PCCC  |       | AMBIENT<br>25F                                                     | 50F   | 75F  | 100F |  |
| 1975             | 0.0                           | 0.0   | 0.0   | 8.87  | 8.46                                                               | 8.10  | 7.86 | 8.02 |  |
| 1975             | 0.0                           | 27.3  | 0.0   | 8.49  | 8.17                                                               | 7.88  | 7.70 | 7.95 |  |
| 1975             | 0.0                           | 100.0 | 0.0   | 7.47  | 7.37                                                               | 7.31  | 7.29 | 7.77 |  |
| 1975             | 20.6                          | 0.0   | 20.6  | 15.73 | 10.85                                                              | 9.07  | 8.23 | 8.17 |  |
| 1975             | 20.6                          | 27.3  | 20.6  | 13.34 | 10.55                                                              | 8.86  | 8.08 | 8.10 |  |
| 1975             | 100.0                         | 0.0   | 100.0 | 32.44 | 20.05                                                              | 12.84 | 9.67 | 8.74 |  |
| 1980             | 0.0                           | 0.0   | 0.0   | 6.12  | 5.63                                                               | 5.22  | 4.97 | 5.44 |  |
| 1980             | 0.0                           | 27.3  | 0.0   | 5.73  | 5.36                                                               | 5.05  | 4.87 | 5.38 |  |
| 1980             | 0.0                           | 100.0 | 0.0   | 4.79  | 4.64                                                               | 4.61  | 4.61 | 5.20 |  |
| 1980             | 20.6                          | 0.0   | 20.6  | 9.76  | 7.43                                                               | 6.00  | 5.32 | 5.56 |  |
| 1980             | 20.6                          | 27.3  | 20.6  | 9.37  | 7.16                                                               | 5.83  | 5.22 | 5.49 |  |
| 1980             | 100.0                         | 0.0   | 100.0 | 23.78 | 14.37                                                              | 8.99  | 6.65 | 6.01 |  |
| 1982             | 0.0                           | 0.0   | 0.0   | 5.23  | 4.70                                                               | 4.26  | 4.00 | 4.56 |  |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.82  | 4.42                                                               | 4.07  | 3.90 | 4.46 |  |
| 1982             | 0.0                           | 100.0 | 0.0   | 3.74  | 3.68                                                               | 3.64  | 3.62 | 4.18 |  |
| 1982             | 20.6                          | 0.0   | 20.6  | 8.21  | 6.16                                                               | 4.88  | 4.28 | 4.62 |  |
| 1982             | 20.6                          | 27.3  | 20.6  | 7.80  | 5.88                                                               | 4.71  | 4.17 | 4.52 |  |
| 1982             | 100.0                         | 0.0   | 100.0 | 19.70 | 11.79                                                              | 7.29  | 5.36 | 4.85 |  |



TABLE 3 (Continued)  
 SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | PF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |      |      |      |
|------------------|-------------------------------|-------|-------|-------|-----------------------------------------------------------------|------|------|------|
|                  | PCCN                          | PHC   | PCCC  |       | AMBIENT<br>25F                                                  | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 3.34  | 2.90                                                            | 2.53 | 2.32 | 2.74 |
| 1987             | 0.0                           | 27.3  | 0.0   | 3.05  | 2.70                                                            | 2.41 | 2.24 | 2.65 |
| 1987             | 0.0                           | 100.0 | 0.0   | 2.28  | 2.18                                                            | 2.10 | 2.05 | 2.42 |
| 1987             | 20.6                          | 0.0   | 20.6  | 5.05  | 3.70                                                            | 2.85 | 2.44 | 2.75 |
| 1987             | 20.6                          | 27.3  | 20.6  | 4.76  | 3.50                                                            | 2.73 | 2.37 | 2.66 |
| 1987             | 100.0                         | 0.0   | 100.0 | 11.65 | 6.78                                                            | 4.08 | 2.93 | 2.78 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.50  | 2.18                                                            | 1.90 | 1.74 | 1.97 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.33  | 2.06                                                            | 1.83 | 1.70 | 1.93 |
| 1990             | 0.0                           | 100.0 | 0.0   | 1.87  | 1.75                                                            | 1.65 | 1.59 | 1.83 |
| 1990             | 20.6                          | 0.0   | 20.6  | 3.68  | 2.70                                                            | 2.10 | 1.80 | 1.99 |
| 1990             | 20.6                          | 27.3  | 20.6  | 3.51  | 2.59                                                            | 2.03 | 1.76 | 1.95 |
| 1990             | 100.0                         | 0.0   | 100.0 | 8.21  | 4.74                                                            | 2.84 | 2.04 | 2.04 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.84  | 1.62                                                            | 1.44 | 1.33 | 1.39 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.77  | 1.58                                                            | 1.41 | 1.31 | 1.39 |
| 1995             | 0.0                           | 100.0 | 0.0   | 1.58  | 1.46                                                            | 1.35 | 1.28 | 1.42 |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.59  | 1.94                                                            | 1.53 | 1.34 | 1.41 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.52  | 1.89                                                            | 1.51 | 1.33 | 1.42 |
| 1995             | 100.0                         | 0.0   | 100.0 | 5.47  | 3.16                                                            | 1.90 | 1.38 | 1.49 |

TABLE 4  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | 0F    | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|-------|--------------------|------|------|----------------|-------|--------------------|------|
| 1975             | 0.0                           | 0.0   | 0.0   | 5.88           | 5.71  | 5.54               | 5.43 | 5.52 | 6.27           | 6.08  | 5.79               | 5.90 |
| 1975             | 0.0                           | 27.3  | 0.0   | 5.63           | 5.50  | 5.39               | 5.32 | 5.46 | 6.01           | 5.88  | 5.70               | 5.87 |
| 1975             | 0.0                           | 100.0 | 0.0   | 4.94           | 4.96  | 5.00               | 5.02 | 5.31 | 5.31           | 5.35  | 5.45               | 5.78 |
| 1975             | 20.6                          | 0.0   | 20.6  | 9.11           | 7.29  | 6.19               | 5.68 | 5.61 | 9.73           | 7.78  | 6.06               | 6.02 |
| 1975             | 20.6                          | 27.3  | 20.6  | 9.86           | 7.09  | 6.04               | 5.56 | 5.55 | 9.47           | 7.58  | 5.97               | 5.98 |
| 1975             | 100.0                         | 0.0   | 100.0 | 21.57          | 13.42 | 8.69               | 6.62 | 5.96 | 23.07          | 14.31 | 7.10               | 6.45 |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.64           | 3.40  | 3.20               | 3.08 | 3.34 | 3.89           | 3.65  | 3.35               | 3.59 |
| 1980             | 0.0                           | 27.3  | 0.0   | 3.40           | 3.23  | 3.09               | 3.01 | 3.29 | 3.64           | 3.49  | 3.29               | 3.57 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.76           | 2.78  | 2.81               | 2.84 | 3.18 | 3.02           | 3.06  | 3.15               | 3.51 |
| 1980             | 20.6                          | 0.0   | 20.6  | 5.92           | 4.53  | 3.68               | 3.29 | 3.41 | 6.25           | 4.83  | 3.57               | 3.68 |
| 1980             | 20.6                          | 27.3  | 20.6  | 5.68           | 4.36  | 3.58               | 3.23 | 3.37 | 6.01           | 4.67  | 3.52               | 3.66 |
| 1980             | 100.0                         | 0.0   | 100.0 | 14.78          | 8.87  | 5.55               | 4.11 | 3.69 | 15.37          | 9.36  | 4.44               | 4.01 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.02           | 2.75  | 2.52               | 2.39 | 2.70 | 3.04           | 2.76  | 2.40               | 2.72 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.77           | 2.57  | 2.41               | 2.32 | 2.63 | 2.80           | 2.60  | 2.35               | 2.67 |
| 1982             | 0.0                           | 100.0 | 0.0   | 2.11           | 2.11  | 2.13               | 2.14 | 2.46 | 2.18           | 2.18  | 2.21               | 2.53 |
| 1982             | 20.6                          | 0.0   | 20.6  | 4.87           | 3.65  | 2.90               | 2.56 | 2.74 | 4.93           | 3.70  | 2.59               | 2.76 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.62           | 3.48  | 2.80               | 2.49 | 2.67 | 4.70           | 3.54  | 2.53               | 2.71 |
| 1982             | 100.0                         | 0.0   | 100.0 | 12.01          | 7.14  | 4.39               | 3.21 | 2.88 | 12.23          | 7.29  | 3.30               | 2.93 |

TABLE 4 (Continued)  
SENSITIVITY OF THE MORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | PCCC  |     | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|-----|------|----------------|------|--------------------|------|------|----------------|------|--------------------|------|
| 1987             | 0.0                           | 0.0   | 0.0   | 0.0 | 1.88 | 1.62           | 1.41 | 1.28               | 1.53 | 1.81 | 1.57           | 1.38 | 1.26               | 1.53 |
| 1987             | 0.0                           | 27.3  | 0.0   | 0.0 | 1.70 | 1.50           | 1.34 | 1.24               | 1.48 | 1.63 | 1.45           | 1.30 | 1.21               | 1.47 |
| 1987             | 0.0                           | 100.0 | 0.0   | 0.0 | 1.22 | 1.18           | 1.14 | 1.12               | 1.33 | 1.13 | 1.11           | 1.10 | 1.00               | 1.31 |
| 1987             | 20.6                          | 0.0   | 20.6  | 0.0 | 2.94 | 2.11           | 1.60 | 1.36               | 1.53 | 2.96 | 2.12           | 1.61 | 1.37               | 1.54 |
| 1987             | 20.6                          | 27.3  | 20.6  | 0.0 | 2.76 | 1.99           | 1.53 | 1.31               | 1.48 | 2.77 | 2.00           | 1.53 | 1.32               | 1.49 |
| 1987             | 100.0                         | 0.0   | 100.0 | 0.0 | 7.05 | 4.02           | 2.35 | 1.65               | 1.54 | 7.39 | 4.25           | 2.51 | 1.77               | 1.60 |
| 1990             | 0.0                           | 0.0   | 0.0   | 0.0 | 1.43 | 1.23           | 1.07 | 0.97               | 1.10 | 1.31 | 1.12           | 0.97 | 0.89               | 1.07 |
| 1990             | 0.0                           | 27.3  | 0.0   | 0.0 | 1.32 | 1.16           | 1.03 | 0.95               | 1.08 | 1.18 | 1.04           | 0.92 | 0.86               | 1.03 |
| 1990             | 0.0                           | 100.0 | 0.0   | 0.0 | 1.02 | 0.97           | 0.92 | 0.88               | 1.02 | 0.84 | 0.82           | 0.79 | 0.73               | 0.93 |
| 1990             | 20.6                          | 0.0   | 20.6  | 0.0 | 2.19 | 1.57           | 1.19 | 1.00               | 1.11 | 2.13 | 1.51           | 1.13 | 0.95               | 1.08 |
| 1990             | 20.6                          | 27.3  | 20.6  | 0.0 | 2.08 | 1.50           | 1.14 | 0.98               | 1.09 | 2.00 | 1.43           | 1.08 | 0.92               | 1.05 |
| 1990             | 100.0                         | 0.0   | 100.0 | 0.0 | 5.11 | 2.86           | 1.64 | 1.13               | 1.13 | 5.29 | 3.01           | 1.75 | 1.22               | 1.15 |
| 1995             | 0.0                           | 0.0   | 0.0   | 0.0 | 1.06 | 0.93           | 0.81 | 0.74               | 0.77 | 0.85 | 0.73           | 0.64 | 0.58               | 0.65 |
| 1995             | 0.0                           | 27.3  | 0.0   | 0.0 | 1.01 | 0.90           | 0.80 | 0.74               | 0.78 | 0.77 | 0.60           | 0.62 | 0.57               | 0.65 |
| 1995             | 0.0                           | 100.0 | 0.0   | 0.0 | 0.90 | 0.83           | 0.77 | 0.73               | 0.81 | 0.63 | 0.60           | 0.56 | 0.54               | 0.62 |
| 1995             | 20.6                          | 0.0   | 20.6  | 0.0 | 1.56 | 1.13           | 0.87 | 0.74               | 0.78 | 1.38 | 0.97           | 0.73 | 0.61               | 0.68 |
| 1995             | 20.6                          | 27.3  | 20.6  | 0.0 | 1.52 | 1.11           | 0.86 | 0.74               | 0.79 | 1.32 | 0.94           | 0.71 | 0.60               | 0.67 |
| 1995             | 100.0                         | 0.0   | 100.0 | 0.0 | 3.50 | 1.92           | 1.08 | 0.73               | 0.82 | 3.43 | 1.91           | 1.09 | 0.75               | 0.78 |

TABLE 4 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      |                    | **LDDV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCN                          | PCHC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.28 | 0.28           | 0.28 | 0.28               | 0.28 |
| 1975             | 0.0                           | 27.3  | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1975             | 0.0                           | 100.0 | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.19 | 0.19           | 0.19 | 0.19               | 0.19 |
| 1975             | 20.6                          | 0.0   | 20.6  | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.29 | 0.29           | 0.29 | 0.29               | 0.29 |
| 1975             | 20.6                          | 27.3  | 20.6  | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1975             | 100.0                         | 0.0   | 100.0 | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.32 | 0.32           | 0.32 | 0.32               | 0.32 |
| 1980             | 0.0                           | 0.0   | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.46 | 0.46           | 0.46 | 0.46               | 0.46 |
| 1980             | 0.0                           | 27.3  | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.42 | 0.42           | 0.42 | 0.42               | 0.42 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.32 | 0.32           | 0.32 | 0.32               | 0.32 |
| 1980             | 20.6                          | 0.0   | 20.6  | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.47 | 0.47           | 0.47 | 0.47               | 0.47 |
| 1980             | 20.6                          | 27.3  | 20.6  | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.43 | 0.43           | 0.43 | 0.43               | 0.43 |
| 1980             | 100.0                         | 0.0   | 100.0 | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.52 | 0.52           | 0.52 | 0.52               | 0.52 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.35 | 0.35           | 0.35 | 0.35               | 0.35 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.32 | 0.32           | 0.32 | 0.32               | 0.32 |
| 1982             | 0.0                           | 100.0 | 0.0   | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1982             | 20.6                          | 0.0   | 20.6  | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.36 | 0.36           | 0.36 | 0.36               | 0.36 |
| 1982             | 20.6                          | 27.3  | 20.6  | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.33 | 0.33           | 0.33 | 0.33               | 0.33 |
| 1982             | 100.0                         | 0.0   | 100.0 | 2.65     | 2.65           | 2.65 | 2.65               | 2.65     | 0.40 | 0.40           | 0.40 | 0.40               | 0.40 |

TABLE 4 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HNDV** |                |                    |      | **LDDV** |                |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|--------------------|------|----------|----------------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F       | AMBIENT<br>25F | TEMPERATURE<br>75F | 100F | 0F       | AMBIENT<br>25F | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.46     | 2.46           | 2.46               | 2.46 | 0.32     | 0.32           | 0.32               | 0.32 |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.46     | 2.46           | 2.46               | 2.46 | 0.30     | 0.30           | 0.30               | 0.30 |
| 1987             | 0.0                           | 100.0 | 0.0   | 2.46     | 2.46           | 2.46               | 2.46 | 0.24     | 0.24           | 0.24               | 0.24 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.46     | 2.46           | 2.46               | 2.46 | 0.33     | 0.33           | 0.33               | 0.33 |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.46     | 2.46           | 2.46               | 2.46 | 0.31     | 0.31           | 0.31               | 0.31 |
| 1987             | 100.0                         | 0.0   | 100.0 | 2.46     | 2.46           | 2.46               | 2.46 | 0.37     | 0.37           | 0.37               | 0.37 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.30     | 2.30           | 2.30               | 2.30 | 0.33     | 0.33           | 0.33               | 0.33 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.30     | 2.30           | 2.30               | 2.30 | 0.30     | 0.30           | 0.30               | 0.30 |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.30     | 2.30           | 2.30               | 2.30 | 0.24     | 0.24           | 0.24               | 0.24 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.30     | 2.30           | 2.30               | 2.30 | 0.34     | 0.34           | 0.34               | 0.34 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.30     | 2.30           | 2.30               | 2.30 | 0.31     | 0.31           | 0.31               | 0.31 |
| 1990             | 100.0                         | 0.0   | 100.0 | 2.30     | 2.30           | 2.30               | 2.30 | 0.38     | 0.38           | 0.38               | 0.38 |
| 1995             | 0.0                           | 0.0   | 0.0   | 2.19     | 2.19           | 2.19               | 2.19 | 0.34     | 0.34           | 0.34               | 0.34 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.19     | 2.19           | 2.19               | 2.19 | 0.32     | 0.32           | 0.32               | 0.32 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.19     | 2.19           | 2.19               | 2.19 | 0.26     | 0.26           | 0.26               | 0.26 |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.19     | 2.19           | 2.19               | 2.19 | 0.35     | 0.35           | 0.35               | 0.35 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.19     | 2.19           | 2.19               | 2.19 | 0.33     | 0.33           | 0.33               | 0.33 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.19     | 2.19           | 2.19               | 2.19 | 0.40     | 0.40           | 0.40               | 0.40 |

TABLE 4 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       | TEMPERATURE |       | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------------|-------|---------|------|-------------|------|---------|------|-------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F      | 25F   | 50F         | 75F   | 0F      | 25F  | 50F         | 75F  | 0F      | 25F  | 50F         | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 14.96   | 13.38 | 12.05       | 11.23 | 11.57   | 0.0  | 0.0         | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 14.96   | 13.38 | 12.05       | 11.23 | 11.57   | 0.0  | 0.0         | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 14.96   | 13.38 | 12.05       | 11.23 | 11.57   | 0.0  | 0.0         | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 14.96   | 13.38 | 12.05       | 11.23 | 11.57   | 0.0  | 0.0         | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 14.96   | 13.38 | 12.05       | 11.23 | 11.57   | 0.0  | 0.0         | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 14.96   | 13.38 | 12.05       | 11.23 | 11.57   | 0.0  | 0.0         | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 11.59   | 10.56 | 9.66        | 9.10  | 9.50    | 0.61 | 0.61        | 0.61 | 0.61    | 0.61 | 0.61        | 0.61 |
| 1980             | 0.0                           | 27.3  | 0.0   | 11.59   | 10.56 | 9.66        | 9.10  | 9.50    | 0.56 | 0.56        | 0.56 | 0.56    | 0.56 | 0.56        | 0.56 |
| 1980             | 0.0                           | 100.0 | 0.0   | 11.59   | 10.56 | 9.66        | 9.10  | 9.50    | 0.42 | 0.42        | 0.42 | 0.42    | 0.42 | 0.42        | 0.42 |
| 1980             | 20.6                          | 0.0   | 20.6  | 11.59   | 10.56 | 9.66        | 9.10  | 9.50    | 0.63 | 0.63        | 0.63 | 0.63    | 0.63 | 0.63        | 0.63 |
| 1980             | 20.6                          | 27.3  | 20.6  | 11.59   | 10.56 | 9.66        | 9.10  | 9.50    | 0.57 | 0.57        | 0.57 | 0.57    | 0.57 | 0.57        | 0.57 |
| 1980             | 100.0                         | 0.0   | 100.0 | 11.59   | 10.56 | 9.66        | 9.10  | 9.50    | 0.69 | 0.69        | 0.69 | 0.69    | 0.69 | 0.69        | 0.69 |
| 1982             | 0.0                           | 0.0   | 0.0   | 9.92    | 9.13  | 8.45        | 8.03  | 8.42    | 0.64 | 0.64        | 0.64 | 0.64    | 0.64 | 0.64        | 0.64 |
| 1982             | 0.0                           | 27.3  | 0.0   | 9.92    | 9.13  | 8.45        | 8.03  | 8.42    | 0.59 | 0.59        | 0.59 | 0.59    | 0.59 | 0.59        | 0.59 |
| 1982             | 0.0                           | 100.0 | 0.0   | 9.92    | 9.13  | 8.45        | 8.03  | 8.42    | 0.45 | 0.45        | 0.45 | 0.45    | 0.45 | 0.45        | 0.45 |
| 1982             | 20.6                          | 0.0   | 20.6  | 9.92    | 9.13  | 8.45        | 8.03  | 8.42    | 0.66 | 0.66        | 0.66 | 0.66    | 0.66 | 0.66        | 0.66 |
| 1982             | 20.6                          | 27.3  | 20.6  | 9.92    | 9.13  | 8.45        | 8.03  | 8.42    | 0.61 | 0.61        | 0.61 | 0.61    | 0.61 | 0.61        | 0.61 |
| 1982             | 100.0                         | 0.0   | 100.0 | 9.92    | 9.13  | 8.45        | 8.03  | 8.42    | 0.73 | 0.73        | 0.73 | 0.73    | 0.73 | 0.73        | 0.73 |



TABLE 4 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|---------|------|-------------|------|---------|------|-------------|------|---------|------|-------------|------|
|                  | PCCH                          | PHC   | PCCC  | 0F      | 25F  | 50F         | 75F  | 0F      | 25F  | 50F         | 75F  | 0F      | 25F  | 50F         | 75F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 5.28    | 4.86 | 4.50        | 4.28 | 4.58    | 0.57 | 0.57        | 0.57 | 0.57    | 0.57 | 0.57        | 0.57 |
| 1987             | 0.0                           | 27.3  | 0.0   | 5.28    | 4.86 | 4.50        | 4.28 | 4.58    | 0.53 | 0.53        | 0.53 | 0.53    | 0.53 | 0.53        | 0.53 |
| 1987             | 0.0                           | 100.0 | 0.0   | 5.28    | 4.86 | 4.50        | 4.28 | 4.58    | 0.43 | 0.43        | 0.43 | 0.43    | 0.43 | 0.43        | 0.43 |
| 1987             | 20.6                          | 0.0   | 20.6  | 5.28    | 4.86 | 4.50        | 4.28 | 4.58    | 0.59 | 0.59        | 0.59 | 0.59    | 0.59 | 0.59        | 0.59 |
| 1987             | 20.6                          | 27.3  | 20.6  | 5.28    | 4.86 | 4.50        | 4.28 | 4.58    | 0.55 | 0.55        | 0.55 | 0.55    | 0.55 | 0.55        | 0.55 |
| 1987             | 100.0                         | 0.0   | 100.0 | 5.28    | 4.86 | 4.50        | 4.28 | 4.58    | 0.66 | 0.66        | 0.66 | 0.66    | 0.66 | 0.66        | 0.66 |
| 1990             | 0.0                           | 0.0   | 0.0   | 3.49    | 3.11 | 2.80        | 2.61 | 2.83    | 0.55 | 0.55        | 0.55 | 0.55    | 0.55 | 0.55        | 0.55 |
| 1990             | 0.0                           | 27.3  | 0.0   | 3.49    | 3.11 | 2.80        | 2.61 | 2.83    | 0.52 | 0.52        | 0.52 | 0.52    | 0.52 | 0.52        | 0.52 |
| 1990             | 0.0                           | 100.0 | 0.0   | 3.49    | 3.11 | 2.80        | 2.61 | 2.83    | 0.42 | 0.42        | 0.42 | 0.42    | 0.42 | 0.42        | 0.42 |
| 1990             | 20.6                          | 0.0   | 20.6  | 3.49    | 3.11 | 2.80        | 2.61 | 2.83    | 0.57 | 0.57        | 0.57 | 0.57    | 0.57 | 0.57        | 0.57 |
| 1990             | 20.6                          | 27.3  | 20.6  | 3.49    | 3.11 | 2.80        | 2.61 | 2.83    | 0.53 | 0.53        | 0.53 | 0.53    | 0.53 | 0.53        | 0.53 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.49    | 3.11 | 2.80        | 2.61 | 2.83    | 0.64 | 0.64        | 0.64 | 0.64    | 0.64 | 0.64        | 0.64 |
| 1995             | 0.0                           | 0.0   | 0.0   | 2.41    | 2.04 | 1.75        | 1.57 | 1.73    | 0.58 | 0.58        | 0.58 | 0.58    | 0.58 | 0.58        | 0.58 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.41    | 2.04 | 1.75        | 1.57 | 1.73    | 0.54 | 0.54        | 0.54 | 0.54    | 0.54 | 0.54        | 0.54 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.41    | 2.04 | 1.75        | 1.57 | 1.73    | 0.45 | 0.45        | 0.45 | 0.45    | 0.45 | 0.45        | 0.45 |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.41    | 2.04 | 1.75        | 1.57 | 1.73    | 0.60 | 0.60        | 0.60 | 0.60    | 0.60 | 0.60        | 0.60 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.41    | 2.04 | 1.75        | 1.57 | 1.73    | 0.56 | 0.56        | 0.56 | 0.56    | 0.56 | 0.56        | 0.56 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.41    | 2.04 | 1.75        | 1.57 | 1.73    | 0.67 | 0.67        | 0.67 | 0.67    | 0.67 | 0.67        | 0.67 |

TABLE 4 (Continued)  
 SENSITIVITY OF THE PORTLE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE<br>TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|--------------------------------------------------------------------|----------------|------|------|------|
|                  | PCCN                          | PCNC  | PCCC  | OF                                                                 | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.23                                                               | 6.00           | 5.79 | 5.65 | 5.75 |
| 1975             | 0.0                           | 27.3  | 0.0   | 5.99                                                               | 5.81           | 5.65 | 5.55 | 5.70 |
| 1975             | 0.0                           | 100.0 | 0.0   | 5.35                                                               | 5.31           | 5.28 | 5.28 | 5.56 |
| 1975             | 20.6                          | 0.0   | 20.6  | 9.27                                                               | 7.49           | 6.40 | 5.88 | 5.83 |
| 1975             | 20.6                          | 27.3  | 20.6  | 9.03                                                               | 7.30           | 6.26 | 5.78 | 5.78 |
| 1975             | 100.0                         | 0.0   | 100.0 | 20.96                                                              | 13.23          | 8.74 | 6.77 | 6.17 |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.98                                                               | 3.72           | 3.50 | 3.36 | 3.61 |
| 1980             | 0.0                           | 27.3  | 0.0   | 3.76                                                               | 3.56           | 3.40 | 3.30 | 3.58 |
| 1980             | 0.0                           | 100.0 | 0.0   | 3.17                                                               | 3.15           | 3.14 | 3.14 | 3.47 |
| 1980             | 20.6                          | 0.0   | 20.6  | 6.10                                                               | 4.76           | 3.95 | 3.56 | 3.68 |
| 1980             | 20.6                          | 27.3  | 20.6  | 5.88                                                               | 4.61           | 3.85 | 3.50 | 3.64 |
| 1980             | 100.0                         | 0.0   | 100.0 | 14.26                                                              | 8.81           | 5.68 | 4.32 | 3.94 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.28                                                               | 3.00           | 2.77 | 2.63 | 2.93 |
| 1982             | 0.0                           | 27.3  | 0.0   | 3.06                                                               | 2.84           | 2.67 | 2.57 | 2.87 |
| 1982             | 0.0                           | 100.0 | 0.0   | 2.46                                                               | 2.43           | 2.41 | 2.41 | 2.72 |
| 1982             | 20.6                          | 0.0   | 20.6  | 4.98                                                               | 3.83           | 3.12 | 2.78 | 2.96 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.76                                                               | 3.68           | 3.02 | 2.72 | 2.90 |
| 1982             | 100.0                         | 0.0   | 100.0 | 11.53                                                              | 7.04           | 4.49 | 3.39 | 3.10 |



TABLE 4 (Continued)  
 SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|------|------|
|                  | PCCN                          | PCNC  | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.96                                                            | 1.72           | 1.53 | 1.41 | 1.64 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.80                                                            | 1.62           | 1.47 | 1.37 | 1.59 |
| 1987             | 0.0                           | 100.0 | 0.0   | 1.39                                                            | 1.34           | 1.29 | 1.27 | 1.47 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.90                                                            | 2.16           | 1.70 | 1.48 | 1.65 |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.74                                                            | 2.06           | 1.64 | 1.44 | 1.60 |
| 1987             | 100.0                         | 0.0   | 100.0 | 6.52                                                            | 3.05           | 2.38 | 1.75 | 1.67 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.45                                                            | 1.27           | 1.13 | 1.04 | 1.16 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.35                                                            | 1.21           | 1.09 | 1.02 | 1.14 |
| 1990             | 0.0                           | 100.0 | 0.0   | 1.10                                                            | 1.04           | 0.99 | 0.96 | 1.08 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.09                                                            | 1.56           | 1.23 | 1.07 | 1.17 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.00                                                            | 1.50           | 1.20 | 1.05 | 1.15 |
| 1990             | 100.0                         | 0.0   | 100.0 | 4.57                                                            | 2.68           | 1.64 | 1.21 | 1.20 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.05                                                            | 0.94           | 0.84 | 0.78 | 0.81 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.01                                                            | 0.91           | 0.83 | 0.78 | 0.82 |
| 1995             | 0.0                           | 100.0 | 0.0   | 0.91                                                            | 0.85           | 0.79 | 0.76 | 0.83 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.46                                                            | 1.11           | 0.89 | 0.79 | 0.83 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.42                                                            | 1.09           | 0.88 | 0.78 | 0.83 |
| 1995             | 100.0                         | 0.0   | 100.0 | 3.04                                                            | 1.78           | 1.10 | 0.81 | 0.87 |

TABLE 5  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF    | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | OF    | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|-------|----------------|------|--------------------|------|-------|----------------|------|--------------------|------|
| 1975             | 0.0                           | 0.0   | 0.0   | 5.18  | 5.03           | 4.90 | 4.81               | 4.88 | 5.51  | 5.36           | 5.21 | 5.12               | 5.21 |
| 1975             | 0.0                           | 27.3  | 0.0   | 4.97  | 4.87           | 4.78 | 4.72               | 4.83 | 5.30  | 5.20           | 5.10 | 5.04               | 5.18 |
| 1975             | 0.0                           | 100.0 | 0.0   | 4.42  | 4.43           | 4.45 | 4.47               | 4.70 | 4.74  | 4.77           | 4.81 | 4.84               | 5.10 |
| 1975             | 20.6                          | 0.0   | 20.6  | 7.79  | 6.32           | 5.42 | 5.01               | 4.95 | 8.25  | 6.70           | 5.76 | 5.33               | 5.29 |
| 1975             | 20.6                          | 27.3  | 20.6  | 7.58  | 6.15           | 5.10 | 4.91               | 4.90 | 8.04  | 6.54           | 5.65 | 5.26               | 5.26 |
| 1975             | 100.0                         | 0.0   | 100.0 | 17.85 | 11.26          | 7.44 | 5.76               | 5.23 | 18.82 | 11.87          | 7.88 | 6.15               | 5.63 |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.10  | 2.92           | 2.76 | 2.67               | 2.87 | 3.30  | 3.12           | 2.98 | 2.89               | 3.08 |
| 1980             | 0.0                           | 27.3  | 0.0   | 2.91  | 2.78           | 2.68 | 2.61               | 2.83 | 3.12  | 3.00           | 2.90 | 2.85               | 3.06 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.41  | 2.43           | 2.45 | 2.47               | 2.74 | 2.64  | 2.67           | 2.70 | 2.73               | 3.00 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.89  | 3.80           | 3.14 | 2.83               | 2.92 | 5.12  | 4.03           | 3.37 | 3.06               | 3.14 |
| 1980             | 20.6                          | 27.3  | 20.6  | 4.71  | 3.67           | 3.06 | 2.78               | 2.89 | 4.94  | 3.90           | 3.29 | 3.02               | 3.12 |
| 1980             | 100.0                         | 0.0   | 100.0 | 11.80 | 7.22           | 4.61 | 3.48               | 3.14 | 12.14 | 7.51           | 4.87 | 3.73               | 3.39 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.53  | 2.31           | 2.14 | 2.04               | 2.28 | 2.54  | 2.33           | 2.16 | 2.05               | 2.29 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.33  | 2.18           | 2.06 | 1.98               | 2.23 | 2.36  | 2.21           | 2.08 | 2.01               | 2.25 |
| 1982             | 0.0                           | 100.0 | 0.0   | 1.82  | 1.82           | 1.83 | 1.84               | 2.09 | 1.88  | 1.88           | 1.89 | 1.90               | 2.15 |
| 1982             | 20.6                          | 0.0   | 20.6  | 3.97  | 3.02           | 2.44 | 2.17               | 2.31 | 4.00  | 3.05           | 2.47 | 2.19               | 2.32 |
| 1982             | 20.6                          | 27.3  | 20.6  | 3.78  | 2.89           | 2.36 | 2.12               | 2.26 | 3.82  | 2.93           | 2.39 | 2.15               | 2.29 |
| 1982             | 100.0                         | 0.0   | 100.0 | 9.53  | 5.74           | 3.60 | 2.68               | 2.42 | 9.64  | 5.83           | 3.66 | 2.74               | 2.46 |

TABLE 5 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | ••LDGV•• |      |      | ••LDGT•• |      |      | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------|------|------|----------|------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCNC  | PCCC  | 0F       | 25F  | 50F  | 75F      | 100F |      |                    |      |      |                |      |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.51     | 1.31 | 1.15 | 1.05     | 1.24 | 1.46 | 1.28               | 1.13 | 1.04 | 1.25           | 1.00 | 1.25               | 1.25 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.37     | 1.22 | 1.09 | 1.02     | 1.20 | 1.32 | 1.18               | 1.07 | 1.00 | 1.20           | 1.00 | 1.20               | 1.20 |
| 1987             | 0.0                           | 100.0 | 0.0   | 1.00     | 0.97 | 0.94 | 0.92     | 1.09 | 0.94 | 0.93               | 0.92 | 0.91 | 1.08           | 1.00 | 1.08               | 1.08 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.33     | 1.69 | 1.30 | 1.11     | 1.24 | 2.35 | 1.70               | 1.31 | 1.12 | 1.26           | 1.00 | 1.26               | 1.26 |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.19     | 1.60 | 1.24 | 1.07     | 1.20 | 2.20 | 1.61               | 1.25 | 1.08 | 1.21           | 1.00 | 1.21               | 1.21 |
| 1987             | 100.0                         | 0.0   | 100.0 | 5.47     | 3.15 | 1.87 | 1.33     | 1.25 | 5.75 | 3.34               | 2.00 | 1.43 | 1.30           | 1.00 | 1.30               | 1.30 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.14     | 0.99 | 0.86 | 0.79     | 0.89 | 1.05 | 0.91               | 0.79 | 0.73 | 0.86           | 0.70 | 0.86               | 0.86 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.05     | 0.93 | 0.83 | 0.77     | 0.87 | 0.95 | 0.84               | 0.76 | 0.70 | 0.84           | 0.70 | 0.84               | 0.84 |
| 1990             | 0.0                           | 100.0 | 0.0   | 0.83     | 0.78 | 0.74 | 0.72     | 0.83 | 0.69 | 0.67               | 0.65 | 0.64 | 0.76           | 0.60 | 0.76               | 0.76 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.72     | 1.25 | 0.95 | 0.81     | 0.89 | 1.60 | 1.21               | 0.92 | 0.78 | 0.98           | 0.70 | 0.98               | 0.98 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.64     | 1.19 | 0.92 | 0.79     | 0.84 | 1.58 | 1.14               | 0.88 | 0.76 | 0.85           | 0.70 | 0.85               | 0.85 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.97     | 2.24 | 1.30 | 0.91     | 0.91 | 4.11 | 2.35               | 1.39 | 0.98 | 0.93           | 0.70 | 0.93               | 0.93 |
| 1995             | 0.0                           | 0.0   | 0.0   | 0.84     | 0.74 | 0.65 | 0.60     | 0.62 | 0.68 | 0.59               | 0.52 | 0.47 | 0.53           | 0.40 | 0.53               | 0.53 |
| 1995             | 0.0                           | 27.3  | 0.0   | 0.80     | 0.72 | 0.64 | 0.59     | 0.62 | 0.62 | 0.56               | 0.50 | 0.46 | 0.52           | 0.40 | 0.52               | 0.52 |
| 1995             | 0.0                           | 100.0 | 0.0   | 0.71     | 0.66 | 0.62 | 0.59     | 0.65 | 0.51 | 0.49               | 0.46 | 0.44 | 0.51           | 0.40 | 0.51               | 0.51 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.22     | 0.89 | 0.69 | 0.59     | 0.62 | 1.09 | 0.78               | 0.59 | 0.50 | 0.55           | 0.40 | 0.55               | 0.55 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.19     | 0.87 | 0.68 | 0.59     | 0.63 | 1.04 | 0.75               | 0.57 | 0.49 | 0.54           | 0.40 | 0.54               | 0.54 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.72     | 1.50 | 0.85 | 0.59     | 0.65 | 2.66 | 1.49               | 0.96 | 0.61 | 0.62           | 0.40 | 0.62               | 0.62 |

TABLE 5 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      | **LDDV**           |      |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCN                          | PCHC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.22 | 0.22           | 0.22 | 0.22               | 0.22 |
| 1975             | 0.0                           | 27.3  | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.20 | 0.20           | 0.20 | 0.20               | 0.20 |
| 1975             | 0.0                           | 100.0 | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.14 | 0.14           | 0.14 | 0.14               | 0.14 |
| 1975             | 20.6                          | 0.0   | 20.6  | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.22 | 0.22           | 0.22 | 0.22               | 0.22 |
| 1975             | 20.6                          | 27.3  | 20.6  | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.20 | 0.20           | 0.20 | 0.20               | 0.20 |
| 1975             | 100.0                         | 0.0   | 100.0 | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1980             | 0.0                           | 0.0   | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.35 | 0.35           | 0.35 | 0.35               | 0.35 |
| 1980             | 0.0                           | 27.3  | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.32 | 0.32           | 0.32 | 0.32               | 0.32 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1980             | 20.6                          | 0.0   | 20.6  | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.36 | 0.36           | 0.36 | 0.36               | 0.36 |
| 1980             | 20.6                          | 27.3  | 20.6  | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.33 | 0.33           | 0.33 | 0.33               | 0.33 |
| 1980             | 100.0                         | 0.0   | 100.0 | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.40 | 0.40           | 0.40 | 0.40               | 0.40 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.27 | 0.27           | 0.27 | 0.27               | 0.27 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1982             | 0.0                           | 100.0 | 0.0   | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.19 | 0.19           | 0.19 | 0.19               | 0.19 |
| 1982             | 20.6                          | 0.0   | 20.6  | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.28 | 0.28           | 0.28 | 0.28               | 0.28 |
| 1982             | 20.6                          | 27.3  | 20.6  | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1982             | 100.0                         | 0.0   | 100.0 | 2.04     | 2.04           | 2.04 | 2.04               | 2.04 | 0.31 | 0.31           | 0.31 | 0.31               | 0.31 |

TABLE 5 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      |                    | **LDDV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.89     | 1.89           | 1.89 | 1.89               | 1.89     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.89     | 1.89           | 1.89 | 1.89               | 1.89     | 0.23 | 0.23           | 0.23 | 0.23               | 0.23 |
| 1987             | 0.0                           | 100.0 | 0.0   | 1.89     | 1.89           | 1.89 | 1.89               | 1.89     | 0.18 | 0.18           | 0.18 | 0.18               | 0.18 |
| 1987             | 20.6                          | 0.0   | 20.6  | 1.89     | 1.89           | 1.89 | 1.89               | 1.89     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1987             | 20.6                          | 27.3  | 20.6  | 1.89     | 1.89           | 1.89 | 1.89               | 1.89     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1987             | 100.0                         | 0.0   | 100.0 | 1.89     | 1.89           | 1.89 | 1.89               | 1.89     | 0.29 | 0.29           | 0.29 | 0.29               | 0.29 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.77     | 1.77           | 1.77 | 1.77               | 1.77     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.77     | 1.77           | 1.77 | 1.77               | 1.77     | 0.23 | 0.23           | 0.23 | 0.23               | 0.23 |
| 1990             | 0.0                           | 100.0 | 0.0   | 1.77     | 1.77           | 1.77 | 1.77               | 1.77     | 0.19 | 0.19           | 0.19 | 0.19               | 0.19 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.77     | 1.77           | 1.77 | 1.77               | 1.77     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.77     | 1.77           | 1.77 | 1.77               | 1.77     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1990             | 100.0                         | 0.0   | 100.0 | 1.77     | 1.77           | 1.77 | 1.77               | 1.77     | 0.29 | 0.29           | 0.29 | 0.29               | 0.29 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.68     | 1.68           | 1.68 | 1.68               | 1.68     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.68     | 1.68           | 1.68 | 1.68               | 1.68     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1995             | 0.0                           | 100.0 | 0.0   | 1.68     | 1.68           | 1.68 | 1.68               | 1.68     | 0.20 | 0.20           | 0.20 | 0.20               | 0.20 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.68     | 1.68           | 1.68 | 1.68               | 1.68     | 0.27 | 0.27           | 0.27 | 0.27               | 0.27 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.68     | 1.68           | 1.68 | 1.68               | 1.68     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1995             | 100.0                         | 0.0   | 100.0 | 1.68     | 1.68           | 1.68 | 1.68               | 1.68     | 0.31 | 0.31           | 0.31 | 0.31               | 0.31 |

TABLE 5 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HGV**        |      |      | **LOOT** |      |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|------|------|----------|------|------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  | AMBIENT<br>25F | 50F  | 75F  | 0F       | 25F  | 50F  |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 11.48          | 9.52 | 8.98 | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 11.48          | 9.52 | 8.98 | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 11.48          | 9.52 | 8.98 | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 11.48          | 9.52 | 8.98 | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 11.48          | 9.52 | 8.98 | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 11.48          | 9.52 | 8.98 | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 8.96           | 7.66 | 7.28 | 0.47     | 0.47 | 0.47 | 0.47               | 0.47 |
| 1980             | 0.0                           | 27.3  | 0.0   | 8.96           | 7.66 | 7.28 | 0.43     | 0.43 | 0.43 | 0.43               | 0.43 |
| 1980             | 0.0                           | 100.0 | 0.0   | 8.96           | 7.66 | 7.28 | 0.32     | 0.32 | 0.32 | 0.32               | 0.32 |
| 1980             | 20.6                          | 0.0   | 20.6  | 8.96           | 7.66 | 7.28 | 0.48     | 0.48 | 0.48 | 0.48               | 0.48 |
| 1980             | 20.6                          | 27.3  | 20.6  | 8.96           | 7.66 | 7.28 | 0.44     | 0.44 | 0.44 | 0.44               | 0.44 |
| 1980             | 100.0                         | 0.0   | 100.0 | 8.96           | 7.66 | 7.28 | 0.53     | 0.53 | 0.53 | 0.53               | 0.53 |
| 1992             | 0.0                           | 0.0   | 0.0   | 7.78           | 6.80 | 6.51 | 0.49     | 0.49 | 0.49 | 0.49               | 0.49 |
| 1992             | 0.0                           | 27.3  | 0.0   | 7.78           | 6.80 | 6.51 | 0.45     | 0.45 | 0.45 | 0.45               | 0.45 |
| 1992             | 0.0                           | 100.0 | 0.0   | 7.78           | 6.80 | 6.51 | 0.35     | 0.35 | 0.35 | 0.35               | 0.35 |
| 1992             | 20.6                          | 0.0   | 20.6  | 7.78           | 6.80 | 6.51 | 0.51     | 0.51 | 0.51 | 0.51               | 0.51 |
| 1992             | 20.6                          | 27.3  | 20.6  | 7.78           | 6.80 | 6.51 | 0.47     | 0.47 | 0.47 | 0.47               | 0.47 |
| 1992             | 100.0                         | 0.0   | 100.0 | 7.78           | 6.80 | 6.51 | 0.56     | 0.56 | 0.56 | 0.56               | 0.56 |

TABLE 5 (Continued)  
SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **H0G6V** |      |      | **L00T** |      |      | TEMPERATURE<br>7°F | 100F | 0F   | AMBIENT<br>25F | 50F  | 100F |
|------------------|-------------------------------|-------|-------|-----------|------|------|----------|------|------|--------------------|------|------|----------------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F        | 25F  | 50F  | 7°F      | 25F  | 50F  |                    |      |      |                |      |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 4.15      | 3.87 | 3.63 | 3.48     | 0.44 | 0.44 | 0.44               | 3.68 | 0.44 | 0.44           | 0.44 | 0.44 |
| 1987             | 0.0                           | 27.3  | 0.0   | 4.15      | 3.87 | 3.63 | 3.48     | 0.41 | 0.41 | 0.41               | 3.68 | 0.41 | 0.41           | 0.41 | 0.41 |
| 1987             | 0.0                           | 100.0 | 0.0   | 4.15      | 3.87 | 3.63 | 3.48     | 0.33 | 0.33 | 0.33               | 3.68 | 0.33 | 0.33           | 0.33 | 0.33 |
| 1987             | 20.6                          | 0.0   | 20.6  | 4.15      | 3.87 | 3.63 | 3.48     | 0.45 | 0.45 | 0.45               | 3.68 | 0.45 | 0.45           | 0.45 | 0.45 |
| 1987             | 20.6                          | 27.3  | 20.6  | 4.15      | 3.87 | 3.63 | 3.48     | 0.42 | 0.42 | 0.42               | 3.68 | 0.42 | 0.42           | 0.42 | 0.42 |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.15      | 3.87 | 3.63 | 3.48     | 0.50 | 0.50 | 0.50               | 3.68 | 0.50 | 0.50           | 0.50 | 0.50 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.65      | 2.40 | 2.19 | 2.06     | 0.42 | 0.42 | 0.42               | 2.21 | 0.42 | 0.42           | 0.42 | 0.42 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.65      | 2.40 | 2.19 | 2.06     | 0.40 | 0.40 | 0.40               | 2.21 | 0.40 | 0.40           | 0.40 | 0.40 |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.65      | 2.40 | 2.19 | 2.06     | 0.32 | 0.32 | 0.32               | 2.21 | 0.32 | 0.32           | 0.32 | 0.32 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.65      | 2.40 | 2.19 | 2.06     | 0.44 | 0.44 | 0.44               | 2.21 | 0.44 | 0.44           | 0.44 | 0.44 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.65      | 2.40 | 2.19 | 2.06     | 0.41 | 0.41 | 0.41               | 2.21 | 0.41 | 0.41           | 0.41 | 0.41 |
| 1990             | 100.0                         | 0.0   | 100.0 | 2.65      | 2.40 | 2.19 | 2.06     | 0.49 | 0.49 | 0.49               | 2.21 | 0.49 | 0.49           | 0.49 | 0.49 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.76      | 1.51 | 1.31 | 1.20     | 0.44 | 0.44 | 0.44               | 1.30 | 0.44 | 0.44           | 0.44 | 0.44 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.76      | 1.51 | 1.31 | 1.20     | 0.42 | 0.42 | 0.42               | 1.30 | 0.42 | 0.42           | 0.42 | 0.42 |
| 1995             | 0.0                           | 100.0 | 0.0   | 1.76      | 1.51 | 1.31 | 1.20     | 0.34 | 0.34 | 0.34               | 1.30 | 0.34 | 0.34           | 0.34 | 0.34 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.76      | 1.51 | 1.31 | 1.20     | 0.46 | 0.46 | 0.46               | 1.30 | 0.46 | 0.46           | 0.46 | 0.46 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.76      | 1.51 | 1.31 | 1.20     | 0.43 | 0.43 | 0.43               | 1.30 | 0.43 | 0.43           | 0.43 | 0.43 |
| 1995             | 100.0                         | 0.0   | 100.0 | 1.76      | 1.51 | 1.31 | 1.20     | 0.52 | 0.52 | 0.52               | 1.30 | 0.52 | 0.52           | 0.52 | 0.52 |



TABLE 5 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GPAH/MILE)  
 SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|------|------|
|                  | PCCN                          | PCHC  | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.40                                                            | 5.22           | 5.06 | 4.95 | 5.02 |
| 1975             | 0.0                           | 27.3  | 0.0   | 5.21                                                            | 5.07           | 4.94 | 4.87 | 4.98 |
| 1975             | 0.0                           | 100.0 | 0.0   | 4.69                                                            | 4.66           | 4.65 | 4.64 | 4.87 |
| 1975             | 20.6                          | 0.0   | 20.6  | 7.85                                                            | 6.42           | 5.55 | 5.13 | 5.09 |
| 1975             | 20.6                          | 27.3  | 20.6  | 7.65                                                            | 6.27           | 5.43 | 5.05 | 5.05 |
| 1975             | 100.0                         | 0.0   | 100.0 | 17.27                                                           | 11.05          | 7.43 | 5.85 | 5.36 |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.35                                                            | 3.15           | 2.98 | 2.88 | 3.07 |
| 1980             | 0.0                           | 27.3  | 0.0   | 3.17                                                            | 3.02           | 2.90 | 2.83 | 3.04 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.72                                                            | 2.70           | 2.70 | 2.70 | 2.96 |
| 1980             | 20.6                          | 0.0   | 20.6  | 5.01                                                            | 3.97           | 3.33 | 3.03 | 3.12 |
| 1980             | 20.6                          | 27.3  | 20.6  | 4.84                                                            | 3.85           | 3.25 | 2.98 | 3.09 |
| 1980             | 100.0                         | 0.0   | 100.0 | 11.41                                                           | 7.14           | 4.69 | 3.63 | 3.33 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.72                                                            | 2.50           | 2.33 | 2.22 | 2.45 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.55                                                            | 2.38           | 2.25 | 2.17 | 2.41 |
| 1982             | 0.0                           | 100.0 | 0.0   | 2.08                                                            | 2.06           | 2.05 | 2.05 | 2.29 |
| 1982             | 20.6                          | 0.0   | 20.6  | 4.04                                                            | 3.15           | 2.60 | 2.34 | 2.48 |
| 1982             | 20.6                          | 27.3  | 20.6  | 3.87                                                            | 3.03           | 2.53 | 2.30 | 2.43 |
| 1982             | 100.0                         | 0.0   | 100.0 | 9.14                                                            | 5.65           | 3.67 | 2.82 | 2.59 |



TABLE 5 (Continued)  
 SENSITIVITY OF THE MONITE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE<br>TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|--------------------------------------------------------------------|----------------|------|------|------|
|                  | PCCW                          | PCMC  | PCCC  | HF                                                                 | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.57                                                               | 1.39           | 1.24 | 1.16 | 1.33 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.45                                                               | 1.31           | 1.20 | 1.13 | 1.29 |
| 1987             | 0.0                           | 100.0 | 0.0   | 1.13                                                               | 1.09           | 1.06 | 1.04 | 1.19 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.29                                                               | 1.73           | 1.38 | 1.21 | 1.33 |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.17                                                               | 1.65           | 1.33 | 1.18 | 1.30 |
| 1987             | 100.0                         | 0.0   | 100.0 | 5.08                                                               | 3.03           | 1.90 | 1.42 | 1.35 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.15                                                               | 1.02           | 0.91 | 0.84 | 0.93 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.08                                                               | 0.97           | 0.88 | 0.82 | 0.92 |
| 1990             | 0.0                           | 100.0 | 0.0   | 0.88                                                               | 0.84           | 0.80 | 0.78 | 0.87 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.65                                                               | 1.24           | 0.99 | 0.87 | 0.94 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.57                                                               | 1.19           | 0.96 | 0.85 | 0.92 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.57                                                               | 2.11           | 1.30 | 0.97 | 0.96 |
| 1995             | 0.0                           | 0.0   | 0.0   | 0.83                                                               | 0.74           | 0.67 | 0.63 | 0.65 |
| 1995             | 0.0                           | 27.3  | 0.0   | 0.80                                                               | 0.72           | 0.66 | 0.62 | 0.65 |
| 1995             | 0.0                           | 100.0 | 0.0   | 0.72                                                               | 0.67           | 0.63 | 0.61 | 0.66 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.15                                                               | 0.88           | 0.71 | 0.63 | 0.66 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.12                                                               | 0.86           | 0.70 | 0.63 | 0.66 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.36                                                               | 1.39           | 0.87 | 0.65 | 0.70 |

TABLE 6  
SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0+-----MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      | TEMPERATURE |      | 100F |      | 0F    |       | AMBIENT |      | TEMPERATURE |      | 100F |
|------------------|-------------------------------|-------|-------|---------|------|-------------|------|------|------|-------|-------|---------|------|-------------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | 25F     | 50F  | 75F         | 50F  | 75F  | 50F  | 75F   | 50F   | 25F     | 50F  | 75F         | 50F  |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 4.91    | 4.78 | 4.70        | 4.78 | 4.70 | 4.76 | 5.36  | 5.21  | 5.08    | 4.99 | 5.07        | 5.04 | 5.12 |
| 1975             | 0.0                           | 27.3  | 0.0   | 4.75    | 4.66 | 4.61        | 4.66 | 4.61 | 4.71 | 5.16  | 5.06  | 4.97    | 4.91 | 5.04        | 5.15 | 5.46 |
| 1975             | 0.0                           | 100.0 | 0.0   | 4.33    | 4.35 | 4.37        | 4.35 | 4.37 | 4.59 | 4.63  | 4.66  | 4.69    | 4.72 | 4.96        | 5.19 | 5.12 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.13    | 5.28 | 4.88        | 5.28 | 4.88 | 4.83 | 7.96  | 6.48  | 5.60    | 5.19 | 4.96        | 5.15 | 5.46 |
| 1975             | 20.6                          | 27.3  | 20.6  | 5.98    | 5.16 | 4.79        | 5.16 | 4.79 | 4.78 | 7.76  | 6.33  | 5.49    | 5.11 | 5.15        | 5.12 | 5.46 |
| 1975             | 100.0                         | 0.0   | 100.0 | 10.85   | 7.20 | 5.60        | 7.20 | 5.60 | 5.09 | 17.97 | 11.38 | 7.60    | 5.96 | 5.46        | 5.12 | 5.46 |
| 1980             | 0.0                           | 0.0   | 0.0   | 2.80    | 2.65 | 2.57        | 2.65 | 2.57 | 2.75 | 3.16  | 2.99  | 2.86    | 2.78 | 2.95        | 2.93 | 2.95 |
| 1980             | 0.0                           | 27.3  | 0.0   | 2.67    | 2.58 | 2.52        | 2.58 | 2.52 | 2.72 | 2.99  | 2.88  | 2.79    | 2.74 | 2.93        | 2.93 | 2.95 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.35    | 2.37 | 2.39        | 2.37 | 2.39 | 2.63 | 2.55  | 2.57  | 2.61    | 2.63 | 2.88        | 2.88 | 2.95 |
| 1980             | 20.6                          | 0.0   | 20.6  | 3.62    | 3.01 | 2.72        | 3.01 | 2.72 | 2.80 | 4.84  | 3.83  | 3.22    | 2.94 | 3.01        | 3.01 | 3.01 |
| 1980             | 20.6                          | 27.3  | 20.6  | 3.50    | 2.93 | 2.67        | 2.93 | 2.67 | 2.77 | 4.67  | 3.71  | 3.15    | 2.90 | 2.99        | 2.99 | 3.01 |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.80    | 4.37 | 3.32        | 4.37 | 3.32 | 3.00 | 11.32 | 7.05  | 4.60    | 3.55 | 3.24        | 3.24 | 3.24 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.20    | 2.04 | 1.94        | 2.04 | 1.94 | 2.16 | 2.40  | 2.21  | 2.05    | 1.96 | 2.18        | 2.18 | 2.18 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.07    | 1.96 | 1.89        | 1.96 | 1.89 | 2.11 | 2.24  | 2.10  | 1.99    | 1.92 | 2.14        | 2.14 | 2.14 |
| 1982             | 0.0                           | 100.0 | 0.0   | 1.75    | 1.76 | 1.76        | 1.76 | 1.76 | 1.99 | 1.80  | 1.80  | 1.81    | 1.82 | 2.04        | 2.04 | 2.04 |
| 1982             | 20.6                          | 0.0   | 20.6  | 2.85    | 2.31 | 2.07        | 2.31 | 2.07 | 2.19 | 3.75  | 2.87  | 2.34    | 2.09 | 2.21        | 2.21 | 2.21 |
| 1982             | 20.6                          | 27.3  | 20.6  | 2.72    | 2.24 | 2.02        | 2.24 | 2.02 | 2.14 | 3.59  | 2.76  | 2.27    | 2.05 | 2.17        | 2.17 | 2.17 |
| 1982             | 100.0                         | 0.0   | 100.0 | 5.36    | 3.38 | 2.54        | 3.38 | 2.54 | 2.30 | 8.94  | 5.43  | 3.44    | 2.59 | 2.33        | 2.33 | 2.33 |

TABLE 6 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | COLD/HOT START<br>PERCENTAGES |     | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------------------------------|-----|------|----------------|------|--------------------|------|------|----------------|------|--------------------|------|
| 1987             | 0.0                           | 0.0   | 0.0                           | 0.0 | 1.39 | 1.21           | 1.07 | 0.98               | 1.15 | 1.36 | 1.19           | 1.05 | 0.97               | 1.16 |
| 1987             | 0.0                           | 27.3  | 0.0                           | 0.0 | 1.27 | 1.13           | 1.02 | 0.95               | 1.11 | 1.23 | 1.10           | 1.00 | 0.94               | 1.12 |
| 1987             | 0.0                           | 100.0 | 0.0                           | 0.0 | 0.93 | 0.91           | 0.88 | 0.86               | 1.01 | 0.88 | 0.87           | 0.86 | 0.86               | 1.01 |
| 1987             | 20.6                          | 0.0   | 20.6                          | 0.0 | 2.13 | 1.56           | 1.20 | 1.03               | 1.15 | 2.16 | 1.58           | 1.22 | 1.05               | 1.17 |
| 1987             | 20.6                          | 27.3  | 20.6                          | 0.0 | 2.01 | 1.47           | 1.15 | 1.00               | 1.11 | 2.03 | 1.49           | 1.16 | 1.02               | 1.13 |
| 1987             | 100.0                         | 0.0   | 100.0                         | 0.0 | 4.99 | 2.88           | 1.72 | 1.23               | 1.16 | 5.25 | 3.06           | 1.85 | 1.33               | 1.21 |
| 1990             | 0.0                           | 0.0   | 0.0                           | 0.0 | 1.04 | 0.91           | 0.79 | 0.73               | 0.82 | 0.97 | 0.84           | 0.74 | 0.68               | 0.80 |
| 1990             | 0.0                           | 27.3  | 0.0                           | 0.0 | 0.97 | 0.86           | 0.77 | 0.71               | 0.80 | 0.88 | 0.78           | 0.70 | 0.65               | 0.77 |
| 1990             | 0.0                           | 100.0 | 0.0                           | 0.0 | 0.76 | 0.72           | 0.69 | 0.66               | 0.76 | 0.65 | 0.63           | 0.61 | 0.60               | 0.71 |
| 1990             | 20.6                          | 0.0   | 20.6                          | 0.0 | 1.57 | 1.14           | 0.88 | 0.75               | 0.82 | 1.54 | 1.11           | 0.85 | 0.72               | 0.81 |
| 1990             | 20.6                          | 27.3  | 20.6                          | 0.0 | 1.50 | 1.03           | 0.85 | 0.73               | 0.81 | 1.45 | 1.05           | 0.81 | 0.70               | 0.79 |
| 1990             | 100.0                         | 0.0   | 100.0                         | 0.0 | 3.61 | 2.05           | 1.19 | 0.84               | 0.84 | 3.74 | 2.15           | 1.27 | 0.91               | 0.86 |
| 1995             | 0.0                           | 0.0   | 0.0                           | 0.0 | 0.77 | 0.67           | 0.60 | 0.55               | 0.56 | 0.62 | 0.54           | 0.48 | 0.44               | 0.49 |
| 1995             | 0.0                           | 27.3  | 0.0                           | 0.0 | 0.73 | 0.66           | 0.59 | 0.55               | 0.57 | 0.58 | 0.52           | 0.46 | 0.43               | 0.48 |
| 1995             | 0.0                           | 100.0 | 0.0                           | 0.0 | 0.65 | 0.61           | 0.57 | 0.54               | 0.60 | 0.48 | 0.45           | 0.43 | 0.41               | 0.47 |
| 1995             | 20.6                          | 0.0   | 20.6                          | 0.0 | 1.11 | 0.82           | 0.63 | 0.55               | 0.57 | 0.99 | 0.71           | 0.54 | 0.46               | 0.51 |
| 1995             | 20.6                          | 27.3  | 20.6                          | 0.0 | 1.08 | 0.80           | 0.63 | 0.54               | 0.58 | 0.95 | 0.69           | 0.53 | 0.45               | 0.50 |
| 1995             | 100.0                         | 0.0   | 100.0                         | 0.0 | 2.46 | 1.36           | 0.78 | 0.54               | 0.60 | 2.41 | 1.36           | 0.79 | 0.56               | 0.57 |

TABLE 6 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      |                    | **LDDV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.21 | 0.21           | 0.21 | 0.21               | 0.21 |
| 1975             | 0.0                           | 27.3  | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.19 | 0.19           | 0.19 | 0.19               | 0.19 |
| 1975             | 0.0                           | 100.0 | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.14 | 0.14           | 0.14 | 0.14               | 0.14 |
| 1975             | 20.6                          | 0.0   | 20.6  | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.21 | 0.21           | 0.21 | 0.21               | 0.21 |
| 1975             | 20.6                          | 27.3  | 20.6  | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.19 | 0.19           | 0.19 | 0.19               | 0.19 |
| 1975             | 100.0                         | 0.0   | 100.0 | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.23 | 0.23           | 0.23 | 0.23               | 0.23 |
| 1980             | 0.0                           | 0.0   | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.34 | 0.34           | 0.34 | 0.34               | 0.34 |
| 1980             | 0.0                           | 27.3  | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.31 | 0.31           | 0.31 | 0.31               | 0.31 |
| 1980             | 0.0                           | 100.0 | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.23 | 0.23           | 0.23 | 0.23               | 0.23 |
| 1980             | 20.6                          | 0.0   | 20.6  | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.35 | 0.35           | 0.35 | 0.35               | 0.35 |
| 1980             | 20.6                          | 27.3  | 20.6  | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.32 | 0.32           | 0.32 | 0.32               | 0.32 |
| 1980             | 100.0                         | 0.0   | 100.0 | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.38 | 0.38           | 0.38 | 0.38               | 0.38 |
| 1982             | 0.0                           | 0.0   | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1982             | 0.0                           | 27.3  | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1982             | 0.0                           | 100.0 | 0.0   | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.18 | 0.18           | 0.18 | 0.18               | 0.18 |
| 1982             | 20.6                          | 0.0   | 20.6  | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1982             | 20.6                          | 27.3  | 20.6  | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1982             | 100.0                         | 0.0   | 100.0 | 1.95     | 1.95           | 1.95 | 1.95               | 1.95     | 0.29 | 0.29           | 0.29 | 0.29               | 0.29 |

TABLE 6 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      |                    | **LODV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.81     | 1.81           | 1.81 | 1.81               | 1.81     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.81     | 1.81           | 1.81 | 1.81               | 1.81     | 0.22 | 0.22           | 0.22 | 0.22               | 0.22 |
| 1987             | 0.0                           | 100.0 | 0.0   | 1.81     | 1.81           | 1.81 | 1.81               | 1.81     | 0.18 | 0.18           | 0.18 | 0.18               | 0.18 |
| 1987             | 20.6                          | 0.0   | 20.6  | 1.81     | 1.81           | 1.81 | 1.81               | 1.81     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1987             | 20.6                          | 27.3  | 20.6  | 1.81     | 1.81           | 1.81 | 1.81               | 1.81     | 0.23 | 0.23           | 0.23 | 0.23               | 0.23 |
| 1987             | 100.0                         | 0.0   | 100.0 | 1.81     | 1.81           | 1.81 | 1.81               | 1.81     | 0.27 | 0.27           | 0.27 | 0.27               | 0.27 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.69     | 1.69           | 1.69 | 1.69               | 1.69     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.69     | 1.69           | 1.69 | 1.69               | 1.69     | 0.22 | 0.22           | 0.22 | 0.22               | 0.22 |
| 1990             | 0.0                           | 100.0 | 0.0   | 1.69     | 1.69           | 1.69 | 1.69               | 1.69     | 0.18 | 0.18           | 0.18 | 0.18               | 0.18 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.69     | 1.69           | 1.69 | 1.69               | 1.69     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.69     | 1.69           | 1.69 | 1.69               | 1.69     | 0.23 | 0.23           | 0.23 | 0.23               | 0.23 |
| 1990             | 100.0                         | 0.0   | 100.0 | 1.69     | 1.69           | 1.69 | 1.69               | 1.69     | 0.28 | 0.28           | 0.28 | 0.28               | 0.28 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.61     | 1.61           | 1.61 | 1.61               | 1.61     | 0.25 | 0.25           | 0.25 | 0.25               | 0.25 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.61     | 1.61           | 1.61 | 1.61               | 1.61     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1995             | 0.0                           | 100.0 | 0.0   | 1.61     | 1.61           | 1.61 | 1.61               | 1.61     | 0.19 | 0.19           | 0.19 | 0.19               | 0.19 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.61     | 1.61           | 1.61 | 1.61               | 1.61     | 0.26 | 0.26           | 0.26 | 0.26               | 0.26 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.61     | 1.61           | 1.61 | 1.61               | 1.61     | 0.24 | 0.24           | 0.24 | 0.24               | 0.24 |
| 1995             | 100.0                         | 0.0   | 100.0 | 1.61     | 1.61           | 1.61 | 1.61               | 1.61     | 0.29 | 0.29           | 0.29 | 0.29               | 0.29 |

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0\*\*\*\*\*MPH

TABLE 6 (Continued)

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDGV** |                |      | **LDDI** |      |      | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------|----------------|------|----------|------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | 75F      | 100F | 0F   |                    |      |      |                |      |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 11.14    | 10.13          | 9.27 | 8.75     | 8.97 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 11.14    | 10.13          | 9.27 | 8.75     | 8.97 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 11.14    | 10.13          | 9.27 | 8.75     | 8.97 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 11.14    | 10.13          | 9.27 | 8.75     | 8.97 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 11.14    | 10.13          | 9.27 | 8.75     | 8.97 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 11.14    | 10.13          | 9.27 | 8.75     | 8.97 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 8.70     | 8.03           | 7.46 | 7.11     | 7.16 | 0.45 | 0.45               | 0.45 | 0.45 | 0.45           | 0.45 | 0.45               | 0.45 |
| 1980             | 0.0                           | 27.3  | 0.0   | 8.70     | 8.03           | 7.46 | 7.11     | 7.16 | 0.41 | 0.41               | 0.41 | 0.41 | 0.41           | 0.41 | 0.41               | 0.41 |
| 1980             | 0.0                           | 100.0 | 0.0   | 8.70     | 8.03           | 7.46 | 7.11     | 7.36 | 0.31 | 0.31               | 0.31 | 0.31 | 0.31           | 0.31 | 0.31               | 0.31 |
| 1980             | 20.6                          | 0.0   | 20.6  | 8.70     | 8.03           | 7.46 | 7.11     | 7.36 | 0.46 | 0.46               | 0.46 | 0.46 | 0.46           | 0.46 | 0.46               | 0.46 |
| 1980             | 20.6                          | 27.3  | 20.6  | 8.70     | 8.03           | 7.46 | 7.11     | 7.36 | 0.42 | 0.42               | 0.42 | 0.42 | 0.42           | 0.42 | 0.42               | 0.42 |
| 1980             | 100.0                         | 0.0   | 100.0 | 8.70     | 8.03           | 7.46 | 7.11     | 7.36 | 0.51 | 0.51               | 0.51 | 0.51 | 0.51           | 0.51 | 0.51               | 0.51 |
| 1982             | 0.0                           | 0.0   | 0.0   | 7.57     | 7.07           | 6.63 | 6.36     | 6.61 | 0.47 | 0.47               | 0.47 | 0.47 | 0.47           | 0.47 | 0.47               | 0.47 |
| 1982             | 0.0                           | 27.3  | 0.0   | 7.57     | 7.07           | 6.63 | 6.36     | 6.61 | 0.43 | 0.43               | 0.43 | 0.43 | 0.43           | 0.43 | 0.43               | 0.43 |
| 1982             | 0.0                           | 100.0 | 0.0   | 7.57     | 7.07           | 6.63 | 6.36     | 6.61 | 0.33 | 0.33               | 0.33 | 0.33 | 0.33           | 0.33 | 0.33               | 0.33 |
| 1982             | 20.6                          | 0.0   | 20.6  | 7.57     | 7.07           | 6.63 | 6.36     | 6.61 | 0.48 | 0.48               | 0.48 | 0.48 | 0.48           | 0.48 | 0.48               | 0.48 |
| 1982             | 20.6                          | 27.3  | 20.6  | 7.57     | 7.07           | 6.63 | 6.36     | 6.61 | 0.45 | 0.45               | 0.45 | 0.45 | 0.45           | 0.45 | 0.45               | 0.45 |
| 1982             | 100.0                         | 0.0   | 100.0 | 7.57     | 7.07           | 6.63 | 6.36     | 6.61 | 0.54 | 0.54               | 0.54 | 0.54 | 0.54           | 0.54 | 0.54               | 0.54 |



SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0\*\*\*\*\*MPH

TABLE 6 (Continued)

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF   | AMBIENT<br>25F | **HGV** |      |      | TEMPERATURE |      |      | 100F | OF   | AMBIENT<br>25F | **LDDT** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|------|----------------|---------|------|------|-------------|------|------|------|------|----------------|----------|------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  |      |                | 50F     | 75F  | 50F  | 75F         |      |      |      |      |                |          |      |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 4.04 | 3.77           | 3.54    | 3.40 | 3.59 | 0.42        | 0.42 | 0.42 | 0.42 | 0.42 | 0.42           | 0.42     | 0.42 | 0.42               | 0.42 |
| 1987             | 0.0                           | 27.3  | 0.0   | 4.04 | 3.77           | 3.54    | 3.40 | 3.59 | 0.39        | 0.39 | 0.39 | 0.39 | 0.39 | 0.39           | 0.39     | 0.39 | 0.39               | 0.39 |
| 1987             | 0.0                           | 100.0 | 0.0   | 4.04 | 3.77           | 3.54    | 3.40 | 3.59 | 0.31        | 0.31 | 0.31 | 0.31 | 0.31 | 0.31           | 0.31     | 0.31 | 0.31               | 0.31 |
| 1987             | 20.6                          | 0.0   | 20.6  | 4.04 | 3.77           | 3.54    | 3.40 | 3.59 | 0.43        | 0.43 | 0.43 | 0.43 | 0.43 | 0.43           | 0.43     | 0.43 | 0.43               | 0.43 |
| 1987             | 20.6                          | 27.3  | 20.6  | 4.04 | 3.77           | 3.54    | 3.40 | 3.59 | 0.40        | 0.40 | 0.40 | 0.40 | 0.40 | 0.40           | 0.40     | 0.40 | 0.40               | 0.40 |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.04 | 3.77           | 3.54    | 3.40 | 3.59 | 0.48        | 0.48 | 0.48 | 0.48 | 0.48 | 0.48           | 0.48     | 0.48 | 0.48               | 0.48 |
| 1988             | 0.0                           | 0.0   | 0.0   | 2.57 | 2.33           | 2.13    | 2.01 | 2.15 | 0.41        | 0.41 | 0.41 | 0.41 | 0.41 | 0.41           | 0.41     | 0.41 | 0.41               | 0.41 |
| 1988             | 0.0                           | 27.3  | 0.0   | 2.57 | 2.33           | 2.13    | 2.01 | 2.15 | 0.38        | 0.38 | 0.38 | 0.38 | 0.38 | 0.38           | 0.38     | 0.38 | 0.38               | 0.38 |
| 1988             | 0.0                           | 100.0 | 0.0   | 2.57 | 2.33           | 2.13    | 2.01 | 2.15 | 0.31        | 0.31 | 0.31 | 0.31 | 0.31 | 0.31           | 0.31     | 0.31 | 0.31               | 0.31 |
| 1988             | 20.6                          | 0.0   | 20.6  | 2.57 | 2.33           | 2.13    | 2.01 | 2.15 | 0.42        | 0.42 | 0.42 | 0.42 | 0.42 | 0.42           | 0.42     | 0.42 | 0.42               | 0.42 |
| 1988             | 20.6                          | 27.3  | 20.6  | 2.57 | 2.33           | 2.13    | 2.01 | 2.15 | 0.39        | 0.39 | 0.39 | 0.39 | 0.39 | 0.39           | 0.39     | 0.39 | 0.39               | 0.39 |
| 1988             | 100.0                         | 0.0   | 100.0 | 2.57 | 2.33           | 2.13    | 2.01 | 2.15 | 0.47        | 0.47 | 0.47 | 0.47 | 0.47 | 0.47           | 0.47     | 0.47 | 0.47               | 0.47 |
| 1989             | 0.0                           | 0.0   | 0.0   | 1.69 | 1.46           | 1.27    | 1.16 | 1.26 | 0.43        | 0.43 | 0.43 | 0.43 | 0.43 | 0.43           | 0.43     | 0.43 | 0.43               | 0.43 |
| 1989             | 0.0                           | 27.3  | 0.0   | 1.69 | 1.46           | 1.27    | 1.16 | 1.26 | 0.40        | 0.40 | 0.40 | 0.40 | 0.40 | 0.40           | 0.40     | 0.40 | 0.40               | 0.40 |
| 1989             | 0.0                           | 100.0 | 0.0   | 1.69 | 1.46           | 1.27    | 1.16 | 1.26 | 0.33        | 0.33 | 0.33 | 0.33 | 0.33 | 0.33           | 0.33     | 0.33 | 0.33               | 0.33 |
| 1989             | 20.6                          | 0.0   | 20.6  | 1.69 | 1.46           | 1.27    | 1.16 | 1.26 | 0.44        | 0.44 | 0.44 | 0.44 | 0.44 | 0.44           | 0.44     | 0.44 | 0.44               | 0.44 |
| 1989             | 20.6                          | 27.3  | 20.6  | 1.69 | 1.46           | 1.27    | 1.16 | 1.26 | 0.41        | 0.41 | 0.41 | 0.41 | 0.41 | 0.41           | 0.41     | 0.41 | 0.41               | 0.41 |
| 1989             | 100.0                         | 0.0   | 100.0 | 1.69 | 1.46           | 1.27    | 1.16 | 1.26 | 0.49        | 0.49 | 0.49 | 0.49 | 0.49 | 0.49           | 0.49     | 0.49 | 0.49               | 0.49 |

TABLE 6 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 HC EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | OF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------|------|
|                  | PCCN                          | PCNC  | PCCC  | AMBIENT<br>25F                                                  | 50F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.09                                                            | 4.93 | 4.83 |
| 1975             | 0.0                           | 27.3  | 0.0   | 4.94                                                            | 4.82 | 4.75 |
| 1975             | 0.0                           | 100.0 | 0.0   | 4.55                                                            | 4.54 | 4.53 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.23                                                            | 5.40 | 5.00 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.09                                                            | 5.29 | 4.92 |
| 1975             | 100.0                         | 0.0   | 100.0 | 10.64                                                           | 7.20 | 5.68 |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.02                                                            | 2.87 | 2.77 |
| 1980             | 0.0                           | 27.3  | 0.0   | 2.91                                                            | 2.80 | 2.73 |
| 1980             | 0.0                           | 100.0 | 0.0   | 2.61                                                            | 2.61 | 2.61 |
| 1980             | 20.6                          | 0.0   | 20.6  | 3.79                                                            | 3.20 | 2.92 |
| 1980             | 20.6                          | 27.3  | 20.6  | 3.68                                                            | 3.12 | 2.87 |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.74                                                            | 4.46 | 3.47 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.39                                                            | 2.22 | 2.13 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.28                                                            | 2.16 | 2.08 |
| 1982             | 0.0                           | 100.0 | 0.0   | 1.98                                                            | 1.97 | 1.97 |
| 1982             | 20.6                          | 0.0   | 20.6  | 2.99                                                            | 2.48 | 2.24 |
| 1982             | 20.6                          | 27.3  | 20.6  | 2.88                                                            | 2.41 | 2.20 |
| 1982             | 100.0                         | 0.0   | 100.0 | 5.29                                                            | 3.46 | 2.68 |



TABLE 6 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HC EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.47                                                            | 1.50           | 1.17 | 1.09 | 1.25 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.36                                                            | 1.23           | 1.12 | 1.06 | 1.21 |
| 1987             | 0.0                           | 100.0 | 0.0   | 1.07                                                            | 1.03           | 1.00 | 0.99 | 1.12 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.12                                                            | 1.61           | 1.29 | 1.14 | 1.25 |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.01                                                            | 1.54           | 1.25 | 1.11 | 1.22 |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.65                                                            | 2.79           | 1.76 | 1.33 | 1.26 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.07                                                            | 0.95           | 0.85 | 0.79 | 0.87 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.00                                                            | 0.90           | 0.82 | 0.77 | 0.86 |
| 1990             | 0.0                           | 100.0 | 0.0   | 0.82                                                            | 0.78           | 0.75 | 0.73 | 0.82 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.52                                                            | 1.15           | 0.92 | 0.81 | 0.88 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.45                                                            | 1.11           | 0.90 | 0.80 | 0.86 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.26                                                            | 1.94           | 1.21 | 0.90 | 0.90 |
| 1995             | 0.0                           | 0.0   | 0.0   | 0.77                                                            | 0.69           | 0.62 | 0.58 | 0.61 |
| 1995             | 0.0                           | 27.3  | 0.0   | 0.74                                                            | 0.67           | 0.61 | 0.58 | 0.61 |
| 1995             | 0.0                           | 100.0 | 0.0   | 0.67                                                            | 0.63           | 0.59 | 0.57 | 0.61 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.05                                                            | 0.81           | 0.66 | 0.59 | 0.61 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.03                                                            | 0.79           | 0.65 | 0.58 | 0.62 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.16                                                            | 1.28           | 0.80 | 0.61 | 0.65 |

TABLE 7

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       |         | ..LOGV..       |        | TEMPERATURE |        | ..LOGT.. |        | TEMPERATURE |        |
|------------------|-------------------------------|-------|-------|---------|----------------|--------|-------------|--------|----------|--------|-------------|--------|
|                  | PCMH                          | PCMC  | PCCC  | OF      | AMBIENT<br>25F | 40F    | 75F         | 100F   | OF       | 25F    | 50F         | 75F    |
| 1975             | 0.0                           | 0.0   | 0.0   | 286.36  | 274.73         | 265.02 | 259.25      | 316.39 | 240.07   | 270.82 | 262.94      | 259.14 |
| 1975             | 0.0                           | 27.3  | 0.0   | 252.66  | 246.80         | 242.60 | 240.57      | 299.41 | 247.23   | 243.42 | 240.91      | 239.90 |
| 1975             | 0.0                           | 100.0 | 0.0   | 162.91  | 172.42         | 182.88 | 190.83      | 254.20 | 159.78   | 170.43 | 182.26      | 191.33 |
| 1975             | 20.6                          | 0.0   | 20.6  | 500.56  | 398.48         | 317.28 | 283.22      | 310.10 | 507.69   | 391.49 | 318.45      | 283.84 |
| 1975             | 20.6                          | 27.3  | 20.6  | 466.86  | 360.55         | 294.85 | 264.54      | 293.12 | 474.85   | 364.09 | 296.43      | 265.60 |
| 1975             | 100.0                         | 0.0   | 100.0 | 1326.16 | 826.89         | 518.69 | 375.63      | 285.84 | 1385.05  | 856.60 | 532.44      | 382.91 |
| 1980             | 0.0                           | 0.0   | 0.0   | 223.83  | 201.15         | 182.48 | 171.39      | 250.00 | 205.93   | 189.11 | 175.34      | 167.21 |
| 1980             | 0.0                           | 27.3  | 0.0   | 190.57  | 175.40         | 163.35 | 156.49      | 227.27 | 177.37   | 166.78 | 158.67      | 154.26 |
| 1980             | 0.0                           | 100.0 | 0.0   | 102.00  | 106.83         | 112.41 | 116.81      | 166.50 | 101.34   | 107.33 | 114.27      | 119.75 |
| 1980             | 20.6                          | 0.0   | 20.6  | 421.40  | 301.08         | 227.39 | 192.88      | 242.35 | 393.12   | 288.19 | 220.65      | 180.28 |
| 1980             | 20.6                          | 27.3  | 20.6  | 308.14  | 275.33         | 208.26 | 177.98      | 219.53 | 370.56   | 265.87 | 203.94      | 176.32 |
| 1980             | 100.0                         | 0.0   | 100.0 | 1182.93 | 686.23         | 400.48 | 275.73      | 212.53 | 1143.75  | 670.12 | 395.29      | 274.32 |
| 1982             | 0.0                           | 0.0   | 0.0   | 197.07  | 171.70         | 151.19 | 139.19      | 216.40 | 173.92   | 153.54 | 137.00      | 127.30 |
| 1982             | 0.0                           | 27.3  | 0.0   | 165.55  | 147.86         | 133.84 | 125.85      | 192.88 | 148.06   | 133.98 | 122.84      | 116.50 |
| 1982             | 0.0                           | 100.0 | 0.0   | 81.64   | 84.37          | 87.66  | 90.34       | 130.22 | 79.20    | 81.91  | 85.13       | 87.74  |
| 1982             | 20.6                          | 0.0   | 20.6  | 361.77  | 253.79         | 187.62 | 156.56      | 207.59 | 338.61   | 236.13 | 174.23      | 145.57 |
| 1982             | 20.6                          | 27.3  | 20.6  | 330.26  | 229.95         | 170.27 | 143.22      | 184.06 | 312.75   | 216.57 | 160.07      | 134.77 |
| 1982             | 100.0                         | 0.0   | 100.0 | 996.61  | 570.21         | 328.03 | 223.51      | 173.61 | 973.40   | 554.43 | 317.72      | 216.01 |
|                  |                               |       |       |         |                |        |             |        |          |        |             | 166.54 |

TABLE 7 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF     | AMBIENT<br>25F | 50F    | TEMPERATURE<br>75F | 100F   | OF     | AMBIENT<br>25F | 50F    | TEMPERATURE<br>75F | 100F   | TEMPERATURE<br>75F |
|------------------|-------------------------------|-------|-------|--------|----------------|--------|--------------------|--------|--------|----------------|--------|--------------------|--------|--------------------|
| 1987             | 0.0                           | 0.0   | 0.0   | 166.11 | 129.37         | 101.89 | 86.82              | 137.53 | 117.56 | 97.61          | 91.87  | 72.84              | 100F   | 100F               |
| 1987             | 0.0                           | 27.3  | 0.0   | 117.95 | 110.79         | 90.43  | 79.25              | 121.64 | 97.79  | 83.33          | 72.00  | 65.55              | 121.86 | 121.86             |
| 1987             | 0.0                           | 100.0 | 0.0   | 62.97  | 61.32          | 59.92  | 59.09              | 79.33  | 45.13  | 45.31          | 45.72  | 46.14              | 106.82 | 106.82             |
| 1987             | 20.6                          | 0.0   | 20.6  | 258.55 | 175.67         | 123.17 | 97.89              | 132.30 | 209.85 | 143.07         | 102.07 | 82.77              | 66.77  | 66.77              |
| 1987             | 20.6                          | 27.3  | 20.6  | 230.40 | 157.00         | 111.71 | 90.32              | 116.42 | 190.08 | 128.79         | 92.20  | 75.48              | 116.19 | 116.19             |
| 1987             | 100.0                         | 0.0   | 100.0 | 614.95 | 354.14         | 205.21 | 140.57             | 112.17 | 565.58 | 318.26         | 179.93 | 121.06             | 101.15 | 101.15             |
| 1990             | 0.0                           | 0.0   | 0.0   | 164.76 | 121.82         | 90.00  | 73.26              | 105.75 | 95.57  | 75.28          | 59.90  | 51.37              | 84.30  | 84.30              |
| 1990             | 0.0                           | 27.3  | 0.0   | 137.14 | 104.84         | 81.22  | 68.53              | 95.84  | 79.36  | 64.38          | 53.02  | 46.72              | 79.14  | 79.14              |
| 1990             | 0.0                           | 100.0 | 0.0   | 63.75  | 60.68          | 57.82  | 55.98              | 69.43  | 36.14  | 35.36          | 34.69  | 34.31              | 47.11  | 47.11              |
| 1990             | 20.6                          | 0.0   | 20.6  | 228.50 | 154.60         | 106.34 | 82.62              | 103.98 | 156.31 | 105.72         | 73.97  | 58.78              | 81.28  | 81.28              |
| 1990             | 20.6                          | 27.3  | 20.6  | 200.92 | 138.02         | 97.55  | 77.89              | 94.07  | 140.07 | 94.63          | 67.09  | 54.12              | 71.13  | 71.13              |
| 1990             | 100.0                         | 0.0   | 100.0 | 474.18 | 282.50         | 169.30 | 118.70             | 97.18  | 390.40 | 223.07         | 128.21 | 87.32              | 69.65  | 69.65              |
| 1995             | 0.0                           | 0.0   | 0.0   | 162.33 | 115.04         | 81.50  | 64.14              | 80.48  | 77.23  | 56.74          | 41.90  | 33.99              | 49.77  | 49.77              |
| 1995             | 0.0                           | 27.3  | 0.0   | 135.90 | 100.46         | 75.15  | 61.84              | 76.03  | 64.53  | 49.21          | 38.02  | 32.01              | 45.23  | 45.23              |
| 1995             | 0.0                           | 100.0 | 0.0   | 65.50  | 61.63          | 58.00  | 55.58              | 64.20  | 30.70  | 29.15          | 27.69  | 26.73              | 38.12  | 38.12              |
| 1995             | 20.6                          | 0.0   | 20.6  | 204.48 | 138.60         | 94.39  | 72.33              | 81.83  | 111.76 | 75.11          | 51.28  | 39.63              | 49.90  | 49.90              |
| 1995             | 20.6                          | 27.3  | 20.6  | 178.04 | 124.03         | 87.95  | 69.98              | 77.39  | 99.05  | 67.57          | 47.41  | 37.64              | 45.35  | 45.35              |
| 1995             | 100.0                         | 0.0   | 100.0 | 366.92 | 229.45         | 143.74 | 103.71             | 87.05  | 244.83 | 145.88         | 87.46  | 61.34              | 50.38  | 50.38              |

TABLE 7 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |       |                    | **LDDV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|-------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F       | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 2.95 | 2.95           | 2.95 | 2.95               | 2.95 |
| 1975             | 0.0                           | 27.3  | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 2.98 | 2.98           | 2.98 | 2.98               | 2.98 |
| 1975             | 0.0                           | 100.0 | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.08 | 3.08           | 3.08 | 3.08               | 3.08 |
| 1975             | 20.6                          | 0.0   | 20.6  | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.12 | 3.12           | 3.12 | 3.12               | 3.12 |
| 1975             | 20.6                          | 27.3  | 20.6  | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.16 | 3.16           | 3.16 | 3.16               | 3.16 |
| 1975             | 100.0                         | 0.0   | 100.0 | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.78 | 3.78           | 3.78 | 3.78               | 3.78 |
| 1980             | 0.0                           | 0.0   | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.80 | 3.80           | 3.80 | 3.80               | 3.80 |
| 1980             | 0.0                           | 27.3  | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.86 | 3.86           | 3.86 | 3.86               | 3.86 |
| 1980             | 0.0                           | 100.0 | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 4.00 | 4.00           | 4.00 | 4.00               | 4.00 |
| 1980             | 20.6                          | 0.0   | 20.6  | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 4.03 | 4.03           | 4.03 | 4.03               | 4.03 |
| 1980             | 20.6                          | 27.3  | 20.6  | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 4.08 | 4.08           | 4.08 | 4.08               | 4.08 |
| 1980             | 100.0                         | 0.0   | 100.0 | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 4.91 | 4.91           | 4.91 | 4.91               | 4.91 |
| 1982             | 0.0                           | 0.0   | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.56 | 3.56           | 3.56 | 3.56               | 3.56 |
| 1982             | 0.0                           | 27.3  | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.61 | 3.61           | 3.61 | 3.61               | 3.61 |
| 1982             | 0.0                           | 100.0 | 0.0   | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.76 | 3.76           | 3.76 | 3.76               | 3.76 |
| 1982             | 20.6                          | 0.0   | 20.6  | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.77 | 3.77           | 3.77 | 3.77               | 3.77 |
| 1982             | 20.6                          | 27.3  | 20.6  | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 3.83 | 3.83           | 3.83 | 3.83               | 3.83 |
| 1982             | 100.0                         | 0.0   | 100.0 | 35.01    | 35.01          | 35.01 | 35.01              | 35.01    | 4.60 | 4.60           | 4.60 | 4.60               | 4.60 |

TABLE 7 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |       | AMBIENT |       |       | TEMPERATURE |       |       |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|-------|---------|-------|-------|-------------|-------|-------|
|                  | PCCH                          | PCMC  | PCCC  | 0F      | 50F   | 75F   | 100F        | 0F    | 50F   | 75F     | 100F  | 0F    | 50F         | 75F   | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1987             | 0.0                           | 27.3  | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1987             | 0.0                           | 100.0 | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1987             | 20.6                          | 0.0   | 20.6  | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1987             | 20.6                          | 27.3  | 20.6  | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1987             | 100.0                         | 0.0   | 100.0 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1990             | 0.0                           | 0.0   | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1990             | 0.0                           | 27.3  | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1990             | 0.0                           | 100.0 | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1990             | 20.6                          | 0.0   | 20.6  | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1990             | 20.6                          | 27.3  | 20.6  | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1990             | 100.0                         | 0.0   | 100.0 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1995             | 0.0                           | 0.0   | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1995             | 0.0                           | 27.3  | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1995             | 0.0                           | 100.0 | 0.0   | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1995             | 20.6                          | 0.0   | 20.6  | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1995             | 20.6                          | 27.3  | 20.6  | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |
| 1995             | 100.0                         | 0.0   | 100.0 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 | 35.01   | 35.01 | 35.01 | 35.01       | 35.01 | 35.01 |

TABLE 7 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>25F | **HOCV** |        | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | **LDDT** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|----------|--------|--------------------|------|------|----------------|----------|------|--------------------|------|
|                  | PCC                           | HC    | PCC   |                | 50F      | 75F    |                    |      |      |                | 50F      | 75F  |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 910.34         | 759.42   | 713.32 | 892.51             | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 910.34         | 759.42   | 713.32 | 892.51             | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 910.34         | 759.42   | 713.32 | 892.51             | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 910.34         | 759.42   | 713.32 | 892.51             | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 910.34         | 759.42   | 713.32 | 892.51             | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 910.34         | 759.42   | 713.32 | 892.51             | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 875.99         | 726.61   | 681.13 | 908.83             | 5.13 | 5.13 | 5.13           | 5.13     | 5.13 | 5.13               | 5.13 |
| 1980             | 0.0                           | 27.3  | 0.0   | 875.99         | 726.61   | 681.13 | 908.83             | 5.20 | 5.20 | 5.20           | 5.20     | 5.20 | 5.20               | 5.20 |
| 1980             | 0.0                           | 100.0 | 0.0   | 875.99         | 726.61   | 681.13 | 908.83             | 5.38 | 5.38 | 5.38           | 5.38     | 5.38 | 5.38               | 5.38 |
| 1980             | 20.6                          | 0.0   | 20.6  | 875.99         | 726.61   | 681.13 | 908.83             | 5.43 | 5.43 | 5.43           | 5.43     | 5.43 | 5.43               | 5.43 |
| 1980             | 20.6                          | 27.3  | 20.6  | 875.99         | 726.61   | 681.13 | 908.83             | 5.50 | 5.50 | 5.50           | 5.50     | 5.50 | 5.50               | 5.50 |
| 1980             | 100.0                         | 0.0   | 100.0 | 875.99         | 726.61   | 681.13 | 908.83             | 6.61 | 6.61 | 6.61           | 6.61     | 6.61 | 6.61               | 6.61 |
| 1982             | 0.0                           | 0.0   | 0.0   | 797.14         | 677.78   | 641.15 | 860.42             | 5.25 | 5.25 | 5.25           | 5.25     | 5.25 | 5.25               | 5.25 |
| 1982             | 0.0                           | 27.3  | 0.0   | 797.14         | 677.78   | 641.15 | 860.42             | 5.32 | 5.32 | 5.32           | 5.32     | 5.32 | 5.32               | 5.32 |
| 1982             | 0.0                           | 100.0 | 0.0   | 797.14         | 677.78   | 641.15 | 860.42             | 5.53 | 5.53 | 5.53           | 5.53     | 5.53 | 5.53               | 5.53 |
| 1982             | 20.6                          | 0.0   | 20.6  | 797.14         | 677.78   | 641.15 | 860.42             | 5.56 | 5.56 | 5.56           | 5.56     | 5.56 | 5.56               | 5.56 |
| 1982             | 20.6                          | 27.3  | 20.6  | 797.14         | 677.78   | 641.15 | 860.42             | 5.64 | 5.64 | 5.64           | 5.64     | 5.64 | 5.64               | 5.64 |
| 1982             | 100.0                         | 0.0   | 100.0 | 797.14         | 677.78   | 641.15 | 860.42             | 6.78 | 6.78 | 6.78           | 6.78     | 6.78 | 6.78               | 6.78 |



TABLE 7 (Continued)  
SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | OF    | AMBIENT<br>25F | ..HDCV.. |        | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | ..LODT.. |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|----------|--------|--------------------|------|------|----------------|----------|------|--------------------|------|
|                  | PCCH                          | PHHC  | PCCH  |                | 50F      | 75F    |                    |      |      |                | 50F      | 75F  |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 465.04         | 402.65   | 383.60 | 515.02             | 5.59 | 5.59 | 5.59           | 5.59     | 5.59 | 5.59               | 5.59 |
| 1987             | 0.0                           | 27.3  | 0.0   | 465.04         | 402.65   | 383.60 | 515.02             | 5.69 | 5.69 | 5.69           | 5.69     | 5.69 | 5.69               | 5.69 |
| 1987             | 0.0                           | 100.0 | 0.0   | 465.04         | 402.65   | 383.60 | 515.02             | 5.94 | 5.94 | 5.94           | 5.94     | 5.94 | 5.94               | 5.94 |
| 1987             | 20.6                          | 0.0   | 20.6  | 465.04         | 402.65   | 383.60 | 515.02             | 5.94 | 5.94 | 5.94           | 5.94     | 5.94 | 5.94               | 5.94 |
| 1987             | 20.6                          | 27.3  | 20.6  | 465.04         | 402.65   | 383.60 | 515.02             | 6.03 | 6.03 | 6.03           | 6.03     | 6.03 | 6.03               | 6.03 |
| 1987             | 100.0                         | 0.0   | 100.0 | 465.04         | 402.65   | 383.60 | 515.02             | 7.28 | 7.28 | 7.28           | 7.28     | 7.28 | 7.28               | 7.28 |
| 1990             | 0.0                           | 0.0   | 0.0   | 298.77         | 249.40   | 234.76 | 307.13             | 5.71 | 5.71 | 5.71           | 5.71     | 5.71 | 5.71               | 5.71 |
| 1990             | 0.0                           | 27.3  | 0.0   | 298.77         | 249.40   | 234.76 | 307.13             | 5.81 | 5.81 | 5.81           | 5.81     | 5.81 | 5.81               | 5.81 |
| 1990             | 0.0                           | 100.0 | 0.0   | 298.77         | 249.40   | 234.76 | 307.13             | 6.09 | 6.09 | 6.09           | 6.09     | 6.09 | 6.09               | 6.09 |
| 1990             | 20.6                          | 0.0   | 20.6  | 298.77         | 249.40   | 234.76 | 307.13             | 6.07 | 6.07 | 6.07           | 6.07     | 6.07 | 6.07               | 6.07 |
| 1990             | 20.6                          | 27.3  | 20.6  | 298.77         | 249.40   | 234.76 | 307.13             | 6.17 | 6.17 | 6.17           | 6.17     | 6.17 | 6.17               | 6.17 |
| 1990             | 100.0                         | 0.0   | 100.0 | 298.77         | 249.40   | 234.76 | 307.13             | 7.45 | 7.45 | 7.45           | 7.45     | 7.45 | 7.45               | 7.45 |
| 1995             | 0.0                           | 0.0   | 0.0   | 191.15         | 151.12   | 139.56 | 168.61             | 5.94 | 5.94 | 5.94           | 5.94     | 5.94 | 5.94               | 5.94 |
| 1995             | 0.0                           | 27.3  | 0.0   | 191.15         | 151.12   | 139.56 | 168.61             | 6.05 | 6.05 | 6.05           | 6.05     | 6.05 | 6.05               | 6.05 |
| 1995             | 0.0                           | 100.0 | 0.0   | 191.15         | 151.12   | 139.56 | 168.61             | 6.36 | 6.36 | 6.36           | 6.36     | 6.36 | 6.36               | 6.36 |
| 1995             | 20.6                          | 0.0   | 20.6  | 191.15         | 151.12   | 139.56 | 168.61             | 6.31 | 6.31 | 6.31           | 6.31     | 6.31 | 6.31               | 6.31 |
| 1995             | 20.6                          | 27.3  | 20.6  | 191.15         | 151.12   | 139.56 | 168.61             | 6.43 | 6.43 | 6.43           | 6.43     | 6.43 | 6.43               | 6.43 |
| 1995             | 100.0                         | 0.0   | 100.0 | 191.15         | 151.12   | 139.56 | 168.61             | 7.77 | 7.77 | 7.77           | 7.77     | 7.77 | 7.77               | 7.77 |

TABLE 7 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF      | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE<br>TYPES COMBINED |        |        |        |
|------------------|-------------------------------|-------|-------|---------|--------------------------------------------------------------------|--------|--------|--------|
|                  | PCCN                          | PCHC  | PCCC  |         | AMBIENT<br>25F                                                     | 50F    | 75F    | 100F   |
| 1975             | 0.0                           | 0.0   | 0.0   | 301.80  | 288.17                                                             | 276.55 | 269.48 | 329.56 |
| 1975             | 0.0                           | 27.3  | 0.0   | 270.98  | 262.59                                                             | 255.99 | 252.35 | 314.09 |
| 1975             | 0.0                           | 100.0 | 0.0   | 188.93  | 194.49                                                             | 201.25 | 206.75 | 272.89 |
| 1975             | 20.6                          | 0.0   | 20.6  | 500.19  | 393.52                                                             | 324.96 | 291.71 | 323.83 |
| 1975             | 20.6                          | 27.3  | 20.6  | 469.38  | 367.94                                                             | 304.41 | 274.59 | 308.36 |
| 1975             | 100.0                         | 0.0   | 100.0 | 1264.88 | 799.59                                                             | 511.57 | 377.43 | 301.75 |
| 1980             | 0.0                           | 0.0   | 0.0   | 240.40  | 217.22                                                             | 197.88 | 186.26 | 266.69 |
| 1980             | 0.0                           | 27.3  | 0.0   | 210.64  | 194.13                                                             | 180.70 | 172.87 | 246.33 |
| 1980             | 0.0                           | 100.0 | 0.0   | 131.38  | 132.66                                                             | 134.96 | 137.21 | 192.12 |
| 1980             | 20.6                          | 0.0   | 20.6  | 420.42  | 308.46                                                             | 238.98 | 205.97 | 259.94 |
| 1980             | 20.6                          | 27.3  | 20.6  | 390.65  | 285.37                                                             | 221.80 | 192.58 | 239.58 |
| 1980             | 100.0                         | 0.0   | 100.0 | 1114.27 | 660.14                                                             | 397.41 | 281.94 | 233.92 |
| 1982             | 0.0                           | 0.0   | 0.0   | 210.36  | 185.43                                                             | 164.93 | 152.88 | 230.74 |
| 1982             | 0.0                           | 27.3  | 0.0   | 182.55  | 164.39                                                             | 149.69 | 141.13 | 210.07 |
| 1982             | 0.0                           | 100.0 | 0.0   | 108.50  | 108.36                                                             | 108.95 | 109.83 | 155.04 |
| 1982             | 20.6                          | 0.0   | 20.6  | 359.56  | 259.88                                                             | 198.11 | 168.74 | 223.13 |
| 1982             | 20.6                          | 27.3  | 20.6  | 331.76  | 238.84                                                             | 182.81 | 156.99 | 202.46 |
| 1982             | 100.0                         | 0.0   | 100.0 | 934.65  | 546.83                                                             | 325.76 | 229.88 | 193.80 |



TABLE 7 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE FIGHT VEHICLE TYPES COMBINED |                        |                    |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------------------------|--------------------|
|                  | PCCN                          | PHC   | PCCC  | OF                                                              | AMBIENT<br>TEMP<br>25F | 75F<br>TEMPERATURE |
| 1987             | 0.0                           | 0.0   | 0.0   | 157.58                                                          | 126.81                 | 103.47             |
| 1987             | 0.0                           | 27.3  | 0.0   | 144.46                                                          | 111.40                 | 90.49              |
| 1987             | 0.0                           | 100.0 | 0.0   | 72.88                                                           | 70.35                  | 84.03              |
| 1987             | 20.6                          | 0.0   | 20.6  | 237.12                                                          | 166.58                 | 66.82              |
| 1987             | 20.6                          | 27.3  | 20.6  | 214.00                                                          | 151.16                 | 99.90              |
| 1987             | 100.0                         | 0.0   | 100.0 | 543.70                                                          | 319.85                 | 121.28             |
| 1987             | 0.0                           | 0.0   | 0.0   | 140.72                                                          | 107.02                 | 136.15             |
| 1987             | 0.0                           | 27.3  | 0.0   | 119.52                                                          | 94.12                  | 69.01              |
| 1987             | 0.0                           | 100.0 | 0.0   | 63.08                                                           | 59.78                  | 65.13              |
| 1987             | 20.6                          | 0.0   | 20.6  | 192.92                                                          | 134.06                 | 54.82              |
| 1987             | 20.6                          | 27.3  | 20.6  | 171.72                                                          | 121.17                 | 76.49              |
| 1987             | 100.0                         | 0.0   | 100.0 | 544.10                                                          | 238.30                 | 72.62              |
| 1987             | 0.0                           | 0.0   | 0.0   | 124.73                                                          | 90.73                  | 89.04              |
| 1987             | 0.0                           | 27.3  | 0.0   | 106.02                                                          | 80.33                  | 105.36             |
| 1987             | 0.0                           | 100.0 | 0.0   | 56.19                                                           | 52.64                  | 53.76              |
| 1987             | 20.6                          | 0.0   | 20.6  | 156.77                                                          | 108.53                 | 51.97              |
| 1987             | 20.6                          | 27.3  | 20.6  | 138.06                                                          | 98.13                  | 64.15              |
| 1987             | 100.0                         | 0.0   | 100.0 | 240.26                                                          | 177.11                 | 47.22              |
| 1987             | 0.0                           | 0.0   | 0.0   | 124.73                                                          | 90.73                  | 59.80              |
| 1987             | 0.0                           | 27.3  | 0.0   | 106.02                                                          | 80.33                  | 71.40              |
| 1987             | 0.0                           | 100.0 | 0.0   | 56.19                                                           | 52.64                  | 58.02              |
| 1987             | 20.6                          | 0.0   | 20.6  | 156.77                                                          | 108.53                 | 65.06              |
| 1987             | 20.6                          | 27.3  | 20.6  | 138.06                                                          | 98.13                  | 83.12              |
| 1987             | 100.0                         | 0.0   | 100.0 | 240.26                                                          | 177.11                 | 72.01              |

TABLE 8  
SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |        |        | TEMPERATURE |        |        | COLD START |        |        | AMBIENT |        |        | TEMPERATURE |        |        |
|------------------|-------------------------------|-------|-------|---------|--------|--------|-------------|--------|--------|------------|--------|--------|---------|--------|--------|-------------|--------|--------|
|                  | PCCH                          | PCNC  | PCCC  | OF      | 25F    | 50F    | 75F         | 100F   | OF     | 25F        | 50F    | 75F    | 100F    | OF     | 25F    | 50F         | 75F    | 100F   |
| 1975             | 0.0                           | 0.0   | 0.0   | 140.33  | 134.97 | 130.53 | 127.91      | 155.25 | 135.57 | 131.31     | 127.71 | 125.53 | 153.31  | 119.89 | 118.19 | 117.10      | 116.70 | 145.63 |
| 1975             | 0.0                           | 27.3  | 0.0   | 124.10  | 121.45 | 119.60 | 118.74      | 147.00 | 119.89 | 118.19     | 117.10 | 116.70 | 145.63  | 119.89 | 118.19 | 117.10      | 116.70 | 145.63 |
| 1975             | 0.0                           | 100.0 | 0.0   | 80.87   | 45.47  | 90.51  | 94.34       | 125.05 | 74.15  | 43.23      | 64.87  | 93.18  | 125.16  | 125.05 | 43.23  | 64.87       | 93.18  | 125.16 |
| 1975             | 20.6                          | 0.0   | 20.6  | 244.42  | 190.32 | 155.97 | 130.54      | 152.22 | 244.41 | 189.29     | 154.39 | 137.86 | 150.47  | 244.41 | 189.29 | 154.39      | 137.86 | 150.47 |
| 1975             | 20.6                          | 27.3  | 20.6  | 228.19  | 176.81 | 145.04 | 130.38      | 143.97 | 229.14 | 176.17     | 143.79 | 129.03 | 142.70  | 229.14 | 176.17 | 143.79      | 129.03 | 142.70 |
| 1975             | 100.0                         | 0.0   | 100.0 | 645.62  | 483.69 | 254.01 | 184.59      | 140.53 | 665.87 | 412.78     | 257.26 | 185.40 | 139.52  | 665.87 | 412.78 | 257.26      | 185.40 | 139.52 |
| 1980             | 0.0                           | 0.0   | 0.0   | 111.11  | 99.56  | 90.06  | 84.44       | 121.89 | 101.80 | 93.16      | 86.11  | 81.97  | 117.94  | 101.80 | 93.16  | 86.11       | 81.97  | 117.94 |
| 1980             | 0.0                           | 27.3  | 0.0   | 94.67   | 86.84  | 80.69  | 77.16       | 112.55 | 87.74  | 82.23      | 77.98  | 75.67  | 108.40  | 87.74  | 82.23  | 77.98       | 75.67  | 108.40 |
| 1980             | 0.0                           | 100.0 | 0.0   | 50.87   | 53.12  | 55.72  | 57.78       | 82.34  | 50.32  | 53.11      | 56.33  | 58.89  | 82.99   | 50.32  | 53.11  | 56.33       | 58.89  | 82.99  |
| 1980             | 20.6                          | 0.0   | 20.6  | 210.28  | 149.67 | 112.63 | 95.31       | 120.15 | 198.18 | 142.54     | 108.73 | 93.04  | 115.45  | 198.18 | 142.54 | 108.73      | 93.04  | 115.45 |
| 1980             | 20.6                          | 27.3  | 20.6  | 193.83  | 136.99 | 103.25 | 86.03       | 108.81 | 184.13 | 131.61     | 100.60 | 86.74  | 105.91  | 184.13 | 131.61 | 100.60      | 86.74  | 105.91 |
| 1980             | 100.0                         | 0.0   | 100.0 | 592.49  | 342.81 | 199.59 | 137.20      | 105.73 | 569.68 | 332.88     | 195.88 | 135.74 | 105.84  | 569.68 | 332.88 | 195.88      | 135.74 | 105.84 |
| 1982             | 0.0                           | 0.0   | 0.0   | 99.25   | 86.10  | 75.49  | 69.29       | 108.58 | 87.67  | 77.06      | 68.47  | 63.44  | 98.33   | 87.67  | 77.06  | 68.47       | 63.44  | 98.33  |
| 1982             | 0.0                           | 27.3  | 0.0   | 83.39   | 74.16  | 66.85  | 62.68       | 96.60  | 74.65  | 67.27      | 61.49  | 58.09  | 88.71   | 74.65  | 67.27  | 61.49       | 58.09  | 88.71  |
| 1982             | 0.0                           | 100.0 | 0.0   | 41.14   | 42.36  | 43.86  | 45.04       | 65.02  | 39.97  | 41.19      | 42.66  | 43.88  | 63.11   | 39.97  | 41.19  | 42.66       | 43.88  | 63.11  |
| 1982             | 20.6                          | 0.0   | 20.6  | 182.85  | 127.73 | 93.99  | 78.17       | 104.20 | 171.44 | 113.03     | 87.42  | 72.80  | 95.36   | 171.44 | 113.03 | 87.42       | 72.80  | 95.36  |
| 1982             | 20.6                          | 27.3  | 20.6  | 156.98  | 115.78 | 85.26  | 71.57       | 92.30  | 158.42 | 109.23     | 80.37  | 67.45  | 85.75   | 158.42 | 109.23 | 80.37       | 67.45  | 85.75  |
| 1982             | 100.0                         | 0.0   | 100.0 | 505.05  | 288.16 | 165.32 | 112.83      | 87.30  | 494.35 | 280.76     | 160.43 | 106.86 | 83.92   | 494.35 | 280.76 | 160.43      | 106.86 | 83.92  |

TABLE 8 (Continued)  
SENSITIVITY OF THE "ORILE2" EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>25F | TEMPERATURE<br>75F |        | ..LDGV.. |       | AMBIENT<br>25F | ..LDGV.. |       | TEMPERATURE<br>75F | 100F  | 0F     | 100F   | 0F    | 100F  | 0F    | 100F  | 0F    | 100F  | 0F    |
|------------------|-------------------------------|-------|-------|----------------|--------------------|--------|----------|-------|----------------|----------|-------|--------------------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
|                  | FCCH                          | PCMC  | PCCC  |                | 50F                | 75F    | 50F      | 75F   |                | 50F      | 75F   |                    |       |        |        |       |       |       |       |       |       |       |
| 1987             | 0.0                           | 0.0   | 0.0   | 86.88          | 67.47              | 52.96  | 47.02    | 45.01 | 60.53          | 41.03    | 37.09 | 37.09              | 71.49 | 60.53  | 50.10  | 41.03 | 37.09 | 37.09 | 37.09 | 37.09 | 37.09 | 37.09 |
| 1987             | 0.0                           | 27.3  | 0.0   | 72.15          | 57.79              | 47.02  | 41.11    | 41.11 | 50.37          | 36.78    | 33.28 | 33.28              | 63.23 | 50.37  | 42.77  | 36.78 | 33.28 | 33.28 | 33.28 | 33.28 | 33.28 | 33.28 |
| 1987             | 0.0                           | 100.0 | 0.0   | 32.92          | 32.00              | 31.20  | 30.72    | 30.72 | 23.21          | 23.36    | 23.52 | 23.52              | 41.20 | 23.21  | 23.23  | 23.36 | 23.52 | 23.52 | 23.52 | 23.52 | 23.52 | 23.52 |
| 1987             | 20.6                          | 0.0   | 20.6  | 135.13         | 91.64              | 64.09  | 50.83    | 50.83 | 108.28         | 73.57    | 42.25 | 42.25              | 68.81 | 108.28 | 73.57  | 52.27 | 42.25 | 42.25 | 42.25 | 42.25 | 42.25 | 42.25 |
| 1987             | 20.6                          | 27.3  | 20.6  | 120.40         | 81.95              | 58.15  | 46.93    | 46.93 | 98.08          | 66.24    | 38.55 | 38.55              | 60.54 | 98.08  | 66.24  | 47.23 | 38.55 | 38.55 | 38.55 | 38.55 | 38.55 | 38.55 |
| 1987             | 100.0                         | 0.0   | 100.0 | 321.09         | 184.78             | 106.99 | 73.25    | 73.25 | 292.09         | 164.03   | 62.17 | 62.17              | 58.45 | 292.09 | 164.03 | 92.54 | 62.17 | 62.17 | 62.17 | 62.17 | 62.17 | 62.17 |
| 1990             | 0.0                           | 0.0   | 0.0   | 96.80          | 63.91              | 47.31  | 38.48    | 38.48 | 49.91          | 31.08    | 26.58 | 26.58              | 55.55 | 49.91  | 31.19  | 31.08 | 26.58 | 26.58 | 26.58 | 26.58 | 26.58 | 26.58 |
| 1990             | 0.0                           | 27.3  | 0.0   | 72.28          | 55.10              | 42.71  | 36.01    | 36.01 | 41.44          | 27.51    | 24.18 | 24.18              | 50.35 | 41.44  | 33.52  | 27.51 | 24.18 | 24.18 | 24.18 | 24.18 | 24.18 | 24.18 |
| 1990             | 0.0                           | 100.0 | 0.0   | 33.60          | 31.96              | 30.44  | 29.43    | 29.43 | 18.88          | 18.03    | 17.80 | 17.80              | 36.50 | 18.88  | 18.42  | 18.03 | 17.80 | 17.80 | 17.80 | 17.80 | 17.80 | 17.80 |
| 1990             | 20.6                          | 0.0   | 20.6  | 120.30         | 81.35              | 55.91  | 43.41    | 43.41 | 81.60          | 55.08    | 30.47 | 30.47              | 54.64 | 81.60  | 55.08  | 38.43 | 30.47 | 30.47 | 30.47 | 30.47 | 30.47 | 30.47 |
| 1990             | 20.6                          | 27.3  | 20.6  | 105.78         | 72.63              | 51.30  | 40.94    | 40.94 | 73.13          | 49.41    | 28.07 | 28.07              | 49.44 | 73.13  | 49.41  | 34.87 | 28.07 | 28.07 | 28.07 | 28.07 | 28.07 | 28.07 |
| 1990             | 100.0                         | 0.0   | 100.0 | 249.42         | 148.58             | 89.04  | 62.43    | 62.43 | 203.74         | 116.30   | 45.45 | 45.45              | 51.12 | 203.74 | 116.30 | 66.78 | 45.45 | 45.45 | 45.45 | 45.45 | 45.45 | 45.45 |
| 1995             | 0.0                           | 0.0   | 0.0   | 85.88          | 60.86              | 43.16  | 33.96    | 33.96 | 40.00          | 22.11    | 17.93 | 17.93              | 42.57 | 40.00  | 22.96  | 22.11 | 17.93 | 17.93 | 17.93 | 17.93 | 17.93 | 17.93 |
| 1995             | 0.0                           | 27.3  | 0.0   | 71.89          | 53.14              | 39.76  | 32.71    | 32.71 | 34.09          | 20.07    | 16.89 | 16.89              | 40.22 | 34.09  | 25.99  | 20.07 | 16.89 | 16.89 | 16.89 | 16.89 | 16.89 | 16.89 |
| 1995             | 0.0                           | 100.0 | 0.0   | 34.65          | 32.61              | 30.68  | 29.41    | 29.41 | 16.22          | 14.62    | 14.11 | 14.11              | 33.97 | 16.22  | 15.40  | 14.62 | 14.11 | 14.11 | 14.11 | 14.11 | 14.11 | 14.11 |
| 1995             | 20.6                          | 0.0   | 20.6  | 108.17         | 73.33              | 49.94  | 38.26    | 38.26 | 59.03          | 39.66    | 20.91 | 20.91              | 43.29 | 59.03  | 39.66  | 27.07 | 20.91 | 20.91 | 20.91 | 20.91 | 20.91 | 20.91 |
| 1995             | 20.6                          | 27.3  | 20.6  | 94.19          | 65.61              | 46.53  | 37.02    | 37.02 | 52.32          | 35.68    | 19.87 | 19.87              | 40.94 | 52.32  | 35.68  | 25.03 | 19.87 | 19.87 | 19.87 | 19.87 | 19.87 | 19.87 |
| 1995             | 100.0                         | 0.0   | 100.0 | 194.11         | 121.38             | 76.04  | 54.87    | 54.87 | 129.30         | 77.04    | 32.39 | 32.39              | 46.05 | 129.30 | 77.04  | 46.18 | 32.39 | 32.39 | 32.39 | 32.39 | 32.39 | 32.39 |

TABLE 8 (Continued)

SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | ***** |                |       |       | ***** |      |                |      | TEMPERATURE |      |  |
|------------------|-------------------------------|-------|-------|-------|----------------|-------|-------|-------|------|----------------|------|-------------|------|--|
|                  | PCCM                          | PCMC  | PCCC  | 0F    | AMBIENT<br>25F | 50F   | 75F   | 100F  | 0F   | AMBIENT<br>25F | 50F  | 75F         | 100F |  |
| 1975             | 0.0                           | 0.0   | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.03 | 2.03           | 2.03 | 2.03        | 2.03 |  |
| 1975             | 0.0                           | 27.3  | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.06 | 2.06           | 2.06 | 2.06        | 2.06 |  |
| 1975             | 0.0                           | 100.0 | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.12 | 2.12           | 2.12 | 2.12        | 2.12 |  |
| 1975             | 20.6                          | 0.0   | 20.6  | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.15 | 2.15           | 2.15 | 2.15        | 2.15 |  |
| 1975             | 20.6                          | 27.3  | 20.6  | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.18 | 2.18           | 2.18 | 2.18        | 2.18 |  |
| 1975             | 100.0                         | 0.0   | 100.0 | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.61 | 2.61           | 2.61 | 2.61        | 2.61 |  |
| 1980             | 0.0                           | 0.0   | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.62 | 2.62           | 2.62 | 2.62        | 2.62 |  |
| 1980             | 0.0                           | 27.3  | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.66 | 2.66           | 2.66 | 2.66        | 2.66 |  |
| 1980             | 0.0                           | 100.0 | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.76 | 2.76           | 2.76 | 2.76        | 2.76 |  |
| 1980             | 20.6                          | 0.0   | 20.6  | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.78 | 2.78           | 2.78 | 2.78        | 2.78 |  |
| 1980             | 20.6                          | 27.3  | 20.6  | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.82 | 2.82           | 2.82 | 2.82        | 2.82 |  |
| 1980             | 100.0                         | 0.0   | 100.0 | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 3.38 | 3.38           | 3.38 | 3.38        | 3.38 |  |
| 1982             | 0.0                           | 0.0   | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.45 | 2.45           | 2.45 | 2.45        | 2.45 |  |
| 1982             | 0.0                           | 27.3  | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.49 | 2.49           | 2.49 | 2.49        | 2.49 |  |
| 1982             | 0.0                           | 100.0 | 0.0   | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.59 | 2.59           | 2.59 | 2.59        | 2.59 |  |
| 1982             | 20.6                          | 0.0   | 20.6  | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.60 | 2.60           | 2.60 | 2.60        | 2.60 |  |
| 1982             | 20.6                          | 27.3  | 20.6  | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 2.64 | 2.64           | 2.64 | 2.64        | 2.64 |  |
| 1982             | 100.0                         | 0.0   | 100.0 | 24.14 | 24.14          | 24.14 | 24.14 | 24.14 | 3.18 | 3.18           | 3.18 | 3.18        | 3.18 |  |

TABLE 8 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|------|------|---------|------|------|-------------|------|------|
|                  | PCHC                          | PCHC  | PCCC  | 0F      | 50F   | 75F   | 100F        | 0F   | 50F  | 75F     | 100F | 0F   | 50F         | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.46 | 2.46 | 2.46    | 2.46 | 2.46 | 2.46        | 2.46 | 2.46 |
| 1987             | 0.0                           | 27.3  | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.50 | 2.50 | 2.50    | 2.50 | 2.50 | 2.50        | 2.50 | 2.50 |
| 1987             | 0.0                           | 100.0 | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.62 | 2.62 | 2.62    | 2.62 | 2.62 | 2.62        | 2.62 | 2.62 |
| 1987             | 20.6                          | 0.0   | 20.6  | 24.14   | 24.14 | 24.14 | 24.14       | 2.61 | 2.61 | 2.61    | 2.61 | 2.61 | 2.61        | 2.61 | 2.61 |
| 1987             | 20.6                          | 27.3  | 20.6  | 24.14   | 24.14 | 24.14 | 24.14       | 2.65 | 2.65 | 2.65    | 2.65 | 2.65 | 2.65        | 2.65 | 2.65 |
| 1987             | 100.0                         | 0.0   | 100.0 | 24.14   | 24.14 | 24.14 | 24.14       | 3.20 | 3.20 | 3.20    | 3.20 | 3.20 | 3.20        | 3.20 | 3.20 |
| 1988             | 0.0                           | 0.0   | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.49 | 2.49 | 2.49    | 2.49 | 2.49 | 2.49        | 2.49 | 2.49 |
| 1988             | 0.0                           | 27.3  | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.53 | 2.53 | 2.53    | 2.53 | 2.53 | 2.53        | 2.53 | 2.53 |
| 1988             | 0.0                           | 100.0 | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.66 | 2.66 | 2.66    | 2.66 | 2.66 | 2.66        | 2.66 | 2.66 |
| 1988             | 20.6                          | 0.0   | 20.6  | 24.14   | 24.14 | 24.14 | 24.14       | 2.64 | 2.64 | 2.64    | 2.64 | 2.64 | 2.64        | 2.64 | 2.64 |
| 1988             | 20.6                          | 27.3  | 20.6  | 24.14   | 24.14 | 24.14 | 24.14       | 2.69 | 2.69 | 2.69    | 2.69 | 2.69 | 2.69        | 2.69 | 2.69 |
| 1988             | 100.0                         | 0.0   | 100.0 | 24.14   | 24.14 | 24.14 | 24.14       | 3.25 | 3.25 | 3.25    | 3.25 | 3.25 | 3.25        | 3.25 | 3.25 |
| 1989             | 0.0                           | 0.0   | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.57 | 2.57 | 2.57    | 2.57 | 2.57 | 2.57        | 2.57 | 2.57 |
| 1989             | 0.0                           | 27.3  | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.62 | 2.62 | 2.62    | 2.62 | 2.62 | 2.62        | 2.62 | 2.62 |
| 1989             | 0.0                           | 100.0 | 0.0   | 24.14   | 24.14 | 24.14 | 24.14       | 2.76 | 2.76 | 2.76    | 2.76 | 2.76 | 2.76        | 2.76 | 2.76 |
| 1989             | 20.6                          | 0.0   | 20.6  | 24.14   | 24.14 | 24.14 | 24.14       | 2.73 | 2.73 | 2.73    | 2.73 | 2.73 | 2.73        | 2.73 | 2.73 |
| 1989             | 20.6                          | 27.3  | 20.6  | 24.14   | 24.14 | 24.14 | 24.14       | 2.79 | 2.79 | 2.79    | 2.79 | 2.79 | 2.79        | 2.79 | 2.79 |
| 1989             | 100.0                         | 0.0   | 100.0 | 24.14   | 24.14 | 24.14 | 24.14       | 3.36 | 3.36 | 3.36    | 3.36 | 3.36 | 3.36        | 3.36 | 3.36 |

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | AMBIENT |        | TEMPERATURE |        | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|---------|--------|-------------|--------|---------|------|-------------|------|---------|------|-------------|------|
|                  | PCHC                          | PCHC  | PCCC    | OF     | 50F         | 75F    | 25F     | OF   | 100F        | 75F  | 25F     | 50F  | 75F         | 100F |
| 1975             | 0.0                           | 0.0   | 0.0     | 605.66 | 505.25      | 474.58 | 552.95  | 0.0  | 593.80      | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0     | 605.66 | 505.25      | 474.58 | 552.95  | 0.0  | 593.80      | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0     | 605.66 | 505.25      | 474.58 | 552.95  | 0.0  | 593.80      | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6    | 605.66 | 505.25      | 474.58 | 552.95  | 0.0  | 593.80      | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6    | 605.66 | 505.25      | 474.58 | 552.95  | 0.0  | 593.80      | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0   | 605.66 | 505.25      | 474.58 | 552.95  | 0.0  | 593.80      | 0.0  | 0.0     | 0.0  | 0.0         | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0     | 582.81 | 483.42      | 453.16 | 530.58  | 3.54 | 604.65      | 3.54 | 3.54    | 3.54 | 3.54        | 3.54 |
| 1980             | 0.0                           | 27.3  | 0.0     | 582.81 | 483.42      | 453.16 | 530.58  | 3.54 | 604.65      | 3.54 | 3.54    | 3.54 | 3.54        | 3.54 |
| 1980             | 0.0                           | 100.0 | 0.0     | 582.81 | 483.42      | 453.16 | 530.58  | 3.71 | 604.65      | 3.71 | 3.71    | 3.71 | 3.71        | 3.71 |
| 1980             | 20.6                          | 0.0   | 20.6    | 582.81 | 483.42      | 453.16 | 530.58  | 3.75 | 604.65      | 3.75 | 3.75    | 3.75 | 3.75        | 3.75 |
| 1980             | 20.6                          | 27.3  | 20.6    | 582.81 | 483.42      | 453.16 | 530.58  | 3.79 | 604.65      | 3.79 | 3.79    | 3.79 | 3.79        | 3.79 |
| 1980             | 100.0                         | 0.0   | 100.0   | 582.81 | 483.42      | 453.16 | 530.58  | 4.56 | 604.65      | 4.56 | 4.56    | 4.56 | 4.56        | 4.56 |
| 1982             | 0.0                           | 0.0   | 0.0     | 530.35 | 450.93      | 426.56 | 488.72  | 3.62 | 572.45      | 3.62 | 3.62    | 3.62 | 3.62        | 3.62 |
| 1982             | 0.0                           | 27.3  | 0.0     | 530.35 | 450.93      | 426.56 | 488.72  | 3.67 | 572.45      | 3.67 | 3.67    | 3.67 | 3.67        | 3.67 |
| 1982             | 0.0                           | 100.0 | 0.0     | 530.35 | 450.93      | 426.56 | 488.72  | 3.81 | 572.45      | 3.81 | 3.81    | 3.81 | 3.81        | 3.81 |
| 1982             | 20.6                          | 0.0   | 20.6    | 530.35 | 450.93      | 426.56 | 488.72  | 3.84 | 572.45      | 3.84 | 3.84    | 3.84 | 3.84        | 3.84 |
| 1982             | 20.6                          | 27.3  | 20.6    | 530.35 | 450.93      | 426.56 | 488.72  | 3.89 | 572.45      | 3.89 | 3.89    | 3.89 | 3.89        | 3.89 |
| 1982             | 100.0                         | 0.0   | 100.0   | 530.35 | 450.93      | 426.56 | 488.72  | 4.68 | 572.45      | 4.68 | 4.68    | 4.68 | 4.68        | 4.68 |



TABLE 8 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | OF    | AMBIENT<br>TEMP | ***HGV** |        | TEMPERATURE<br>75F | 100F   | OF   | AMBIENT<br>TEMP | ***LDDT** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|-----------------|----------|--------|--------------------|--------|------|-----------------|-----------|------|--------------------|------|
|                  | PCC                           | CHC   | PCCC  |                 | 50F      | 100F   |                    |        |      |                 | 50F       | 100F |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 309.39          | 267.89   | 342.65 | 255.21             | 342.65 | 3.85 | 3.85            | 3.85      | 3.85 | 3.85               | 3.85 |
| 1987             | 0.0                           | 27.3  | 0.0   | 309.39          | 267.89   | 342.65 | 255.21             | 342.65 | 3.92 | 3.92            | 3.92      | 3.92 | 3.92               | 3.92 |
| 1987             | 0.0                           | 100.0 | 0.0   | 309.39          | 267.89   | 342.65 | 255.21             | 342.65 | 4.10 | 4.10            | 4.10      | 4.10 | 4.10               | 4.10 |
| 1987             | 20.6                          | 0.0   | 20.6  | 309.39          | 267.89   | 342.65 | 255.21             | 342.65 | 4.09 | 4.09            | 4.09      | 4.09 | 4.09               | 4.09 |
| 1987             | 20.6                          | 27.3  | 20.6  | 309.39          | 267.89   | 342.65 | 255.21             | 342.65 | 4.16 | 4.16            | 4.16      | 4.16 | 4.16               | 4.16 |
| 1987             | 100.0                         | 0.0   | 100.0 | 309.39          | 267.89   | 342.65 | 255.21             | 342.65 | 5.02 | 5.02            | 5.02      | 5.02 | 5.02               | 5.02 |
| 1990             | 0.0                           | 0.0   | 0.0   | 198.77          | 165.93   | 204.34 | 156.19             | 204.34 | 3.94 | 3.94            | 3.94      | 3.94 | 3.94               | 3.94 |
| 1990             | 0.0                           | 27.3  | 0.0   | 198.77          | 165.93   | 204.34 | 156.19             | 204.34 | 4.01 | 4.01            | 4.01      | 4.01 | 4.01               | 4.01 |
| 1990             | 0.0                           | 100.0 | 0.0   | 198.77          | 165.93   | 204.34 | 156.19             | 204.34 | 4.20 | 4.20            | 4.20      | 4.20 | 4.20               | 4.20 |
| 1990             | 20.6                          | 0.0   | 20.6  | 198.77          | 165.93   | 204.34 | 156.19             | 204.34 | 4.18 | 4.18            | 4.18      | 4.18 | 4.18               | 4.18 |
| 1990             | 20.6                          | 27.3  | 20.6  | 198.77          | 165.93   | 204.34 | 156.19             | 204.34 | 4.26 | 4.26            | 4.26      | 4.26 | 4.26               | 4.26 |
| 1990             | 100.0                         | 0.0   | 100.0 | 198.77          | 165.93   | 204.34 | 156.19             | 204.34 | 5.14 | 5.14            | 5.14      | 5.14 | 5.14               | 5.14 |
| 1995             | 0.0                           | 0.0   | 0.0   | 127.17          | 100.54   | 112.18 | 92.85              | 112.18 | 4.09 | 4.09            | 4.09      | 4.09 | 4.09               | 4.09 |
| 1995             | 0.0                           | 27.3  | 0.0   | 127.17          | 100.54   | 112.18 | 92.85              | 112.18 | 4.17 | 4.17            | 4.17      | 4.17 | 4.17               | 4.17 |
| 1995             | 0.0                           | 100.0 | 0.0   | 127.17          | 100.54   | 112.18 | 92.85              | 112.18 | 4.39 | 4.39            | 4.39      | 4.39 | 4.39               | 4.39 |
| 1995             | 20.6                          | 0.0   | 20.6  | 127.17          | 100.54   | 112.18 | 92.85              | 112.18 | 4.35 | 4.35            | 4.35      | 4.35 | 4.35               | 4.35 |
| 1995             | 20.6                          | 27.3  | 20.6  | 127.17          | 100.54   | 112.18 | 92.85              | 112.18 | 4.43 | 4.43            | 4.43      | 4.43 | 4.43               | 4.43 |
| 1995             | 100.0                         | 0.0   | 100.0 | 127.17          | 100.54   | 112.18 | 92.85              | 112.18 | 5.36 | 5.36            | 5.36      | 5.36 | 5.36               | 5.36 |

TABLE 8 (Continued)

SENSITIVITY OF THE HORLE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR

CO EMISSION FACTORS (GRAMS/MILE)

SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AF     | COMPOSITE FISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |        |                         |
|------------------|-------------------------------|-------|-------|--------|----------------------------------------------------------------|--------|-------------------------|
|                  | PCCN                          | HCNC  | PCCC  |        | AMERICAN<br>25F                                                | 5BF    | TEMPERATURE<br>75F 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 154.64 | 147.60                                                         | 141.75 | 156.13 168.26           |
| 1975             | 0.0                           | 27.3  | 0.0   | 159.02 | 135.33                                                         | 131.75 | 129.74 160.76           |
| 1975             | 0.0                           | 100.0 | 0.0   | 100.34 | 102.41                                                         | 105.12 | 107.41 140.77           |
| 1975             | 20.6                          | 0.0   | 20.6  | 250.90 | 190.87                                                         | 165.28 | 148.91 165.51           |
| 1975             | 20.6                          | 27.3  | 20.6  | 236.07 | 186.51                                                         | 155.20 | 140.52 158.00           |
| 1975             | 100.0                         | 0.0   | 100.0 | 621.09 | 396.17                                                         | 295.97 | 190.45 194.89           |
| 1980             | 0.0                           | 0.0   | 0.0   | 125.72 | 113.30                                                         | 103.00 | 96.88 138.74            |
| 1980             | 0.0                           | 27.3  | 0.0   | 111.01 | 102.03                                                         | 94.67  | 90.35 128.62            |
| 1980             | 0.0                           | 100.0 | 0.0   | 71.85  | 71.79                                                          | 72.26  | 72.94 101.70            |
| 1980             | 20.6                          | 0.0   | 20.6  | 215.90 | 159.09                                                         | 123.71 | 106.84 135.44           |
| 1980             | 20.6                          | 27.3  | 20.6  | 201.27 | 147.74                                                         | 115.30 | 100.30 125.37           |
| 1980             | 100.0                         | 0.0   | 100.0 | 563.07 | 335.27                                                         | 203.21 | 145.21 122.92           |
| 1982             | 0.0                           | 0.0   | 0.0   | 111.57 | 98.26                                                          | 87.53  | 80.85 121.90            |
| 1982             | 0.0                           | 27.3  | 0.0   | 97.50  | 87.72                                                          | 79.71  | 75.02 111.46            |
| 1982             | 0.0                           | 100.0 | 0.0   | 60.30  | 59.67                                                          | 59.44  | 59.52 83.64             |
| 1982             | 20.6                          | 0.0   | 20.6  | 187.30 | 136.01                                                         | 104.15 | 88.96 118.13            |
| 1982             | 20.6                          | 27.3  | 20.6  | 175.30 | 125.47                                                         | 96.54  | 83.14 107.60            |
| 1982             | 100.0                         | 0.0   | 100.0 | 479.18 | 281.50                                                         | 168.99 | 120.24 103.57           |



TABLE 8 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | OF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |        | TEMPERATURE |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|--------|-------------|-------|
|                  | PCCN                          | PCMC  |       | AMBIENT<br>25F                                                  | 50F    | 75F         | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 68.85                                                           | 56.36  | 40.41       | 75.64 |
| 1987             | 0.0                           | 27.3  | 0.0   | 60.83                                                           | 51.37  | 46.09       | 60.64 |
| 1987             | 0.0                           | 100.0 | 0.0   | 39.48                                                           | 38.10  | 37.24       | 49.97 |
| 1987             | 20.6                          | 0.0   | 20.6  | 89.56                                                           | 65.86  | 54.34       | 73.33 |
| 1987             | 20.6                          | 27.3  | 20.6  | 81.54                                                           | 60.87  | 51.02       | 66.32 |
| 1987             | 100.0                         | 0.0   | 100.0 | 169.36                                                          | 102.47 | 73.35       | 64.41 |
| 1990             | 0.0                           | 0.0   | 0.0   | 58.08                                                           | 44.90  | 37.80       | 53.83 |
| 1990             | 0.0                           | 27.3  | 0.0   | 51.31                                                           | 41.26  | 35.78       | 49.57 |
| 1990             | 0.0                           | 100.0 | 0.0   | 33.26                                                           | 31.54  | 30.42       | 38.24 |
| 1990             | 20.6                          | 0.0   | 20.6  | 72.27                                                           | 51.84  | 41.74       | 53.02 |
| 1990             | 20.6                          | 27.3  | 20.6  | 65.50                                                           | 48.20  | 39.73       | 48.76 |
| 1990             | 100.0                         | 0.0   | 100.0 | 126.95                                                          | 78.59  | 56.95       | 49.90 |
| 1995             | 0.0                           | 0.0   | 0.0   | 49.20                                                           | 36.27  | 29.48       | 36.95 |
| 1995             | 0.0                           | 27.3  | 0.0   | 43.71                                                           | 33.81  | 28.54       | 35.13 |
| 1995             | 0.0                           | 100.0 | 0.0   | 29.08                                                           | 27.24  | 26.04       | 30.31 |
| 1995             | 20.6                          | 0.0   | 20.6  | 58.60                                                           | 41.34  | 32.68       | 37.44 |
| 1995             | 20.6                          | 27.3  | 20.6  | 53.31                                                           | 38.87  | 31.74       | 35.62 |
| 1995             | 100.0                         | 0.0   | 100.0 | 94.82                                                           | 60.87  | 45.82       | 39.32 |

TABLE 9  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       |     | **LOGV** |       | AMBIENT |        | TEMPERATURE |       | **LOGT** |       | AMBIENT |        | TEMPERATURE |       |
|------------------|-------------------------------|-------|-------|-----|----------|-------|---------|--------|-------------|-------|----------|-------|---------|--------|-------------|-------|
|                  | PCCH                          | PCHC  | PCCC  |     | 50F      | 75F   | 0F      | 25F    | 0F          | 75F   | 50F      | 75F   | 25F     | 0F     | 75F         | 100F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 0.0 | 68.44    | 67.25 | 81.12   | 67.54  | 69.55       | 64.87 | 65.87    | 64.87 | 67.54   | 69.55  | 64.87       | 78.94 |
| 1975             | 0.0                           | 27.3  | 0.0   | 0.0 | 62.81    | 62.48 | 76.87   | 60.92  | 61.67       | 60.35 | 60.48    | 60.35 | 60.92   | 61.67  | 60.35       | 75.01 |
| 1975             | 0.0                           | 100.0 | 0.0   | 0.0 | 47.82    | 49.79 | 65.56   | 43.27  | 40.68       | 48.33 | 46.13    | 48.33 | 43.27   | 40.68  | 48.33       | 64.54 |
| 1975             | 20.6                          | 0.0   | 20.6  | 0.0 | 81.61    | 73.26 | 79.60   | 97.10  | 125.12      | 79.50 | 79.50    | 71.17 | 97.10   | 125.12 | 71.17       | 77.55 |
| 1975             | 20.6                          | 27.3  | 20.6  | 0.0 | 75.98    | 68.49 | 75.35   | 90.48  | 117.24      | 66.65 | 74.11    | 66.65 | 90.48   | 117.24 | 66.65       | 73.62 |
| 1975             | 100.0                         | 0.0   | 100.0 | 0.0 | 132.36   | 96.40 | 73.74   | 211.05 | 330.31      | 95.44 | 132.04   | 95.44 | 211.05  | 330.31 | 95.44       | 72.22 |
| 1980             | 0.0                           | 0.0   | 0.0   | 0.0 | 49.14    | 45.87 | 68.39   | 50.99  | 56.16       | 44.33 | 46.79    | 44.33 | 50.99   | 56.16  | 44.33       | 64.72 |
| 1980             | 0.0                           | 27.3  | 0.0   | 0.0 | 44.08    | 41.97 | 62.04   | 45.04  | 48.43       | 40.97 | 42.42    | 40.97 | 45.04   | 48.43  | 40.97       | 59.40 |
| 1980             | 0.0                           | 100.0 | 0.0   | 0.0 | 30.60    | 31.60 | 45.12   | 29.19  | 27.83       | 32.03 | 30.77    | 32.03 | 29.19   | 27.83  | 32.03       | 45.21 |
| 1980             | 20.6                          | 0.0   | 20.6  | 0.0 | 61.97    | 52.13 | 66.42   | 78.82  | 110.63      | 50.67 | 59.57    | 50.67 | 78.82   | 110.63 | 50.67       | 63.46 |
| 1980             | 20.6                          | 27.3  | 20.6  | 0.0 | 56.91    | 48.24 | 60.07   | 72.87  | 102.90      | 47.31 | 55.20    | 47.31 | 72.87   | 102.90 | 47.31       | 58.13 |
| 1980             | 100.0                         | 0.0   | 100.0 | 0.0 | 111.44   | 76.29 | 58.83   | 186.10 | 320.57      | 75.11 | 108.83   | 75.11 | 186.10  | 320.57 | 75.11       | 58.57 |
| 1982             | 0.0                           | 0.0   | 0.0   | 0.0 | 42.57    | 38.82 | 61.98   | 43.91  | 50.41       | 35.56 | 38.65    | 35.56 | 43.91   | 50.41  | 35.56       | 56.24 |
| 1982             | 0.0                           | 27.3  | 0.0   | 0.0 | 37.71    | 35.14 | 55.06   | 38.33  | 42.91       | 32.61 | 34.69    | 32.61 | 38.33   | 42.91  | 32.61       | 50.63 |
| 1982             | 0.0                           | 100.0 | 0.0   | 0.0 | 24.78    | 25.34 | 34.64   | 23.47  | 22.92       | 24.70 | 24.14    | 24.70 | 23.47   | 22.92  | 24.70       | 35.67 |
| 1982             | 20.6                          | 0.0   | 20.6  | 0.0 | 53.38    | 44.09 | 59.52   | 68.47  | 99.59       | 41.14 | 49.77    | 41.14 | 68.47   | 99.59  | 41.14       | 54.60 |
| 1982             | 20.6                          | 27.3  | 20.6  | 0.0 | 48.53    | 40.41 | 52.60   | 62.89  | 92.08       | 38.17 | 45.81    | 38.17 | 62.89   | 92.08  | 38.17       | 48.38 |
| 1982             | 100.0                         | 0.0   | 100.0 | 0.0 | 95.07    | 64.39 | 50.01   | 163.16 | 289.14      | 62.57 | 92.63    | 62.57 | 163.16  | 289.14 | 62.57       | 48.26 |

TABLE 9 (Continued)  
 SENSITIVITY OF THE MORILEP EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **LDGV** |                |       | TEMPERATURE |       |        | **LDGT**       |       |       | TEMPERATURE |  |  |
|------------------|-------------------------------|-------|-------|----------|----------------|-------|-------------|-------|--------|----------------|-------|-------|-------------|--|--|
|                  | PCCH                          | PCNC  | PCCC  | OF       | AMBIENT<br>25F | 50F   | 75F         | 100F  | OF     | AMBIENT<br>25F | 50F   | 75F   | 100F        |  |  |
| 1987             | 0.0                           | 0.0   | 0.0   | 53.85    | 41.62          | 32.47 | 27.47       | 43.86 | 36.59  | 30.02          | 24.85 | 21.89 | 37.45       |  |  |
| 1987             | 0.0                           | 27.3  | 0.0   | 44.72    | 35.65          | 28.85 | 25.11       | 38.77 | 30.41  | 25.62          | 21.85 | 19.71 | 32.72       |  |  |
| 1987             | 0.0                           | 100.0 | 0.0   | 20.38    | 19.75          | 19.19 | 18.84       | 25.21 | 13.95  | 13.88          | 13.87 | 13.90 | 20.15       |  |  |
| 1987             | 20.6                          | 0.0   | 20.6  | 83.63    | 56.53          | 39.36 | 31.10       | 42.24 | 65.51  | 44.23          | 31.20 | 25.06 | 35.72       |  |  |
| 1987             | 20.6                          | 27.3  | 20.6  | 74.40    | 50.56          | 35.73 | 28.74       | 37.15 | 59.33  | 39.83          | 28.20 | 22.88 | 31.00       |  |  |
| 1987             | 100.0                         | 0.0   | 100.0 | 198.37   | 114.00         | 65.91 | 45.08       | 35.99 | 176.97 | 99.01          | 55.64 | 37.27 | 29.06       |  |  |
| 1990             | 0.0                           | 0.0   | 0.0   | 54.49    | 40.05          | 29.59 | 24.02       | 34.70 | 30.88  | 24.13          | 19.02 | 16.19 | 26.84       |  |  |
| 1990             | 0.0                           | 27.3  | 0.0   | 45.38    | 34.59          | 26.72 | 22.49       | 31.45 | 25.64  | 20.64          | 16.85 | 14.74 | 23.59       |  |  |
| 1990             | 0.0                           | 100.0 | 0.0   | 21.10    | 20.06          | 19.08 | 18.43       | 22.82 | 11.67  | 11.34          | 11.06 | 10.89 | 14.91       |  |  |
| 1990             | 20.6                          | 0.0   | 20.6  | 75.42    | 50.95          | 34.97 | 27.11       | 34.14 | 50.46  | 33.94          | 23.58 | 18.62 | 25.91       |  |  |
| 1990             | 20.6                          | 27.3  | 20.6  | 66.31    | 45.49          | 32.10 | 25.59       | 30.90 | 45.22  | 30.45          | 21.40 | 17.17 | 22.65       |  |  |
| 1990             | 100.0                         | 0.0   | 100.0 | 156.09   | 92.98          | 55.71 | 39.06       | 32.00 | 125.94 | 71.77          | 41.14 | 27.97 | 22.31       |  |  |
| 1995             | 0.0                           | 0.0   | 0.0   | 54.34    | 38.51          | 27.31 | 21.48       | 26.94 | 25.76  | 18.91          | 13.94 | 11.29 | 16.54       |  |  |
| 1995             | 0.0                           | 27.3  | 0.0   | 45.49    | 33.63          | 25.15 | 20.70       | 25.45 | 21.53  | 16.40          | 12.65 | 10.64 | 15.03       |  |  |
| 1995             | 0.0                           | 100.0 | 0.0   | 21.02    | 20.63          | 19.41 | 18.61       | 21.49 | 10.24  | 9.72           | 9.23  | 8.90  | 11.02       |  |  |
| 1995             | 20.6                          | 0.0   | 20.6  | 68.44    | 46.39          | 31.60 | 24.21       | 27.33 | 37.27  | 25.03          | 17.07 | 13.18 | 16.59       |  |  |
| 1995             | 20.6                          | 27.3  | 20.6  | 59.60    | 41.51          | 29.44 | 23.42       | 25.90 | 33.03  | 22.52          | 15.78 | 12.52 | 15.09       |  |  |
| 1995             | 100.0                         | 0.0   | 100.0 | 122.82   | 76.80          | 48.11 | 34.72       | 29.14 | 81.60  | 48.61          | 29.14 | 20.44 | 16.78       |  |  |

TABLE 9 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV**       |       |                    | **LDDV** |                |      |                    |
|------------------|-------------------------------|-------|-------|----------------|-------|--------------------|----------|----------------|------|--------------------|
|                  | PCCH                          | PCHC  | PCCC  | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F |
| 1975             | 0.0                           | 0.0   | 0.0   | 13.43          | 13.43 | 13.43              | 1.13     | 1.13           | 1.13 | 1.13               |
| 1975             | 0.0                           | 27.3  | 0.0   | 13.43          | 13.43 | 13.43              | 1.14     | 1.14           | 1.14 | 1.14               |
| 1975             | 0.0                           | 100.0 | 0.0   | 13.43          | 13.43 | 13.43              | 1.18     | 1.18           | 1.18 | 1.18               |
| 1975             | 20.6                          | 0.0   | 20.6  | 13.43          | 13.43 | 13.43              | 1.20     | 1.20           | 1.20 | 1.20               |
| 1975             | 20.6                          | 27.3  | 20.6  | 13.43          | 13.43 | 13.43              | 1.21     | 1.21           | 1.21 | 1.21               |
| 1975             | 100.0                         | 0.0   | 100.0 | 13.43          | 13.43 | 13.43              | 1.45     | 1.45           | 1.45 | 1.45               |
| 1980             | 0.0                           | 0.0   | 0.0   | 13.43          | 13.43 | 13.43              | 1.46     | 1.46           | 1.46 | 1.46               |
| 1980             | 0.0                           | 27.3  | 0.0   | 13.43          | 13.43 | 13.43              | 1.48     | 1.48           | 1.48 | 1.48               |
| 1980             | 0.0                           | 100.0 | 0.0   | 13.43          | 13.43 | 13.43              | 1.54     | 1.54           | 1.54 | 1.54               |
| 1980             | 20.6                          | 0.0   | 20.6  | 13.43          | 13.43 | 13.43              | 1.55     | 1.55           | 1.55 | 1.55               |
| 1980             | 20.6                          | 27.3  | 20.6  | 13.43          | 13.43 | 13.43              | 1.57     | 1.57           | 1.57 | 1.57               |
| 1980             | 100.0                         | 0.0   | 100.0 | 13.43          | 13.43 | 13.43              | 1.88     | 1.88           | 1.88 | 1.88               |
| 1982             | 0.0                           | 0.0   | 0.0   | 13.43          | 13.43 | 13.43              | 1.36     | 1.36           | 1.36 | 1.36               |
| 1982             | 0.0                           | 27.3  | 0.0   | 13.43          | 13.43 | 13.43              | 1.39     | 1.39           | 1.39 | 1.39               |
| 1982             | 0.0                           | 100.0 | 0.0   | 13.43          | 13.43 | 13.43              | 1.44     | 1.44           | 1.44 | 1.44               |
| 1982             | 20.6                          | 0.0   | 20.6  | 13.43          | 13.43 | 13.43              | 1.45     | 1.45           | 1.45 | 1.45               |
| 1982             | 20.6                          | 27.3  | 20.6  | 13.43          | 13.43 | 13.43              | 1.47     | 1.47           | 1.47 | 1.47               |
| 1982             | 100.0                         | 0.0   | 100.0 | 13.43          | 13.43 | 13.43              | 1.77     | 1.77           | 1.77 | 1.77               |

TABLE 9 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | **HNDV**       |                    | **LNDV**       |                    | SPEED |
|------------------|-------------------------------|-------|----------------|--------------------|----------------|--------------------|-------|
|                  | PCCH                          | PHCC  | AMBIENT<br>25F | TEMPERATURE<br>75F | AMBIENT<br>25F | TEMPERATURE<br>75F |       |
|                  |                               |       | OF             | 100F               | OF             | 100F               |       |
| 1987             | 0.0                           | 0.0   | 13.43          | 13.43              | 1.37           | 1.37               | 1.37  |
| 1987             | 0.0                           | 27.3  | 13.43          | 13.43              | 1.39           | 1.39               | 1.39  |
| 1987             | 0.0                           | 100.0 | 13.43          | 13.43              | 1.46           | 1.46               | 1.46  |
| 1987             | 20.6                          | 0.0   | 13.43          | 13.43              | 1.45           | 1.45               | 1.45  |
| 1987             | 20.6                          | 27.3  | 13.43          | 13.43              | 1.48           | 1.48               | 1.48  |
| 1987             | 100.0                         | 0.0   | 13.43          | 13.43              | 1.78           | 1.78               | 1.78  |
| 1990             | 0.0                           | 0.0   | 13.43          | 13.43              | 1.38           | 1.38               | 1.38  |
| 1990             | 0.0                           | 27.3  | 13.43          | 13.43              | 1.41           | 1.41               | 1.41  |
| 1990             | 0.0                           | 100.0 | 13.43          | 13.43              | 1.48           | 1.48               | 1.48  |
| 1990             | 20.6                          | 0.0   | 13.43          | 13.43              | 1.47           | 1.47               | 1.47  |
| 1990             | 20.6                          | 27.3  | 13.43          | 13.43              | 1.50           | 1.50               | 1.50  |
| 1990             | 100.0                         | 0.0   | 13.43          | 13.43              | 1.81           | 1.81               | 1.81  |
| 1995             | 0.0                           | 0.0   | 13.43          | 13.43              | 1.43           | 1.43               | 1.43  |
| 1995             | 0.0                           | 27.3  | 13.43          | 13.43              | 1.46           | 1.46               | 1.46  |
| 1995             | 0.0                           | 100.0 | 13.43          | 13.43              | 1.54           | 1.54               | 1.54  |
| 1995             | 20.6                          | 0.0   | 13.43          | 13.43              | 1.52           | 1.52               | 1.52  |
| 1995             | 20.6                          | 27.3  | 13.43          | 13.43              | 1.55           | 1.55               | 1.55  |
| 1995             | 100.0                         | 0.0   | 13.43          | 13.43              | 1.87           | 1.87               | 1.87  |

TABLE 9 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       |     | ••HDGV••       |        |                    |        | ••LODT•• |                |      |                    | TEMPERATURE<br>75F | 100F | 100F |
|------------------|-------------------------------|-------|-------|-----|----------------|--------|--------------------|--------|----------|----------------|------|--------------------|--------------------|------|------|
|                  | PCCH                          | PHCH  | PCCC  | OF  | AMBIENT<br>25F | 50F    | TEMPERATURE<br>75F | 100F   | OF       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F |                    |      |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 0.0 | 323.14         | 295.02 | 269.57             | 253.21 | 316.01   | 0.0            | 0.0  | 0.0                | 0.0                | 0.0  | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 0.0 | 323.14         | 295.02 | 269.57             | 253.21 | 316.01   | 0.0            | 0.0  | 0.0                | 0.0                | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 0.0 | 323.14         | 295.02 | 269.57             | 253.21 | 316.01   | 0.0            | 0.0  | 0.0                | 0.0                | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 0.0 | 323.14         | 295.02 | 269.57             | 253.21 | 316.01   | 0.0            | 0.0  | 0.0                | 0.0                | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 0.0 | 323.14         | 295.02 | 269.57             | 253.21 | 316.01   | 0.0            | 0.0  | 0.0                | 0.0                | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 0.0 | 323.14         | 295.02 | 269.57             | 253.21 | 316.01   | 0.0            | 0.0  | 0.0                | 0.0                | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 0.0 | 310.95         | 203.08 | 257.93             | 241.78 | 322.61   | 1.97           | 1.97 | 1.97               | 1.97               | 1.97 | 1.97 |
| 1980             | 0.0                           | 27.3  | 0.0   | 0.0 | 310.95         | 203.08 | 257.93             | 241.78 | 322.61   | 1.99           | 1.99 | 1.99               | 1.99               | 1.99 | 1.99 |
| 1980             | 0.0                           | 100.0 | 0.0   | 0.0 | 310.95         | 203.08 | 257.93             | 241.78 | 322.61   | 2.06           | 2.06 | 2.06               | 2.06               | 2.06 | 2.06 |
| 1980             | 20.6                          | 0.0   | 20.6  | 0.0 | 310.95         | 203.08 | 257.93             | 241.78 | 322.61   | 2.08           | 2.08 | 2.08               | 2.08               | 2.08 | 2.08 |
| 1980             | 20.6                          | 27.3  | 20.6  | 0.0 | 310.95         | 203.08 | 257.93             | 241.78 | 322.61   | 2.11           | 2.11 | 2.11               | 2.11               | 2.11 | 2.11 |
| 1980             | 100.0                         | 0.0   | 100.0 | 0.0 | 310.95         | 203.08 | 257.93             | 241.78 | 322.61   | 2.53           | 2.53 | 2.53               | 2.53               | 2.53 | 2.53 |
| 1982             | 0.0                           | 0.0   | 0.0   | 0.0 | 282.96         | 260.75 | 240.59             | 227.59 | 305.42   | 2.01           | 2.01 | 2.01               | 2.01               | 2.01 | 2.01 |
| 1982             | 0.0                           | 27.3  | 0.0   | 0.0 | 282.96         | 260.75 | 240.59             | 227.59 | 305.42   | 2.04           | 2.04 | 2.04               | 2.04               | 2.04 | 2.04 |
| 1982             | 0.0                           | 100.0 | 0.0   | 0.0 | 282.96         | 260.75 | 240.59             | 227.59 | 305.42   | 2.12           | 2.12 | 2.12               | 2.12               | 2.12 | 2.12 |
| 1982             | 20.6                          | 0.0   | 20.6  | 0.0 | 282.96         | 260.75 | 240.59             | 227.59 | 305.42   | 2.13           | 2.13 | 2.13               | 2.13               | 2.13 | 2.13 |
| 1982             | 20.6                          | 27.3  | 20.6  | 0.0 | 282.96         | 260.75 | 240.59             | 227.59 | 305.42   | 2.16           | 2.16 | 2.16               | 2.16               | 2.16 | 2.16 |
| 1982             | 100.0                         | 0.0   | 100.0 | 0.0 | 282.96         | 260.75 | 240.59             | 227.59 | 305.42   | 2.60           | 2.60 | 2.60               | 2.60               | 2.60 | 2.60 |



TABLE 9 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HGV** |                |        | TEMPERATURE |        |      | **LDV**        |      |      | TEMPERATURE |      |  |
|------------------|-------------------------------|-------|-------|---------|----------------|--------|-------------|--------|------|----------------|------|------|-------------|------|--|
|                  | PCCH                          | PHCH  | PCCC  | OF      | AMBIENT<br>25F | 50F    | 75F         | 100F   | OF   | AMBIENT<br>25F | 50F  | 75F  | 100F        |      |  |
| 1987             | 0.0                           | 0.0   | 0.0   | 165.07  | 153.44         | 142.93 | 136.17      | 182.82 | 2.14 | 2.14           | 2.14 | 2.14 | 2.14        | 100F |  |
| 1987             | 0.0                           | 27.3  | 0.0   | 165.07  | 153.44         | 142.93 | 136.17      | 182.82 | 2.14 | 2.14           | 2.14 | 2.14 | 2.14        | 2.14 |  |
| 1987             | 0.0                           | 100.0 | 0.0   | 165.07  | 153.44         | 142.93 | 136.17      | 182.82 | 2.28 | 2.28           | 2.28 | 2.28 | 2.28        | 2.14 |  |
| 1987             | 20.6                          | 0.0   | 20.6  | 165.07  | 153.44         | 142.93 | 136.17      | 182.82 | 2.28 | 2.28           | 2.28 | 2.28 | 2.28        | 2.28 |  |
| 1987             | 20.6                          | 27.3  | 20.6  | 165.07  | 153.44         | 142.93 | 136.17      | 182.82 | 2.31 | 2.31           | 2.31 | 2.31 | 2.31        | 2.31 |  |
| 1987             | 100.0                         | 0.0   | 100.0 | 165.07  | 153.44         | 142.93 | 136.17      | 182.82 | 2.79 | 2.79           | 2.79 | 2.79 | 2.79        | 2.79 |  |
| 1990             | 0.0                           | 0.0   | 0.0   | 106.05  | 96.76          | 88.53  | 83.33       | 109.02 | 2.19 | 2.19           | 2.19 | 2.19 | 2.19        | 2.19 |  |
| 1990             | 0.0                           | 27.3  | 0.0   | 106.05  | 96.76          | 88.53  | 83.33       | 109.02 | 2.23 | 2.23           | 2.23 | 2.23 | 2.23        | 2.23 |  |
| 1990             | 0.0                           | 100.0 | 0.0   | 106.05  | 96.76          | 88.53  | 83.33       | 109.02 | 2.34 | 2.34           | 2.34 | 2.34 | 2.34        | 2.34 |  |
| 1990             | 20.6                          | 0.0   | 20.6  | 106.05  | 96.76          | 88.53  | 83.33       | 109.02 | 2.33 | 2.33           | 2.33 | 2.33 | 2.33        | 2.33 |  |
| 1990             | 20.6                          | 27.3  | 20.6  | 106.05  | 96.76          | 88.53  | 83.33       | 109.02 | 2.37 | 2.37           | 2.37 | 2.37 | 2.37        | 2.37 |  |
| 1990             | 100.0                         | 0.0   | 100.0 | 106.05  | 96.76          | 88.53  | 83.33       | 109.02 | 2.86 | 2.86           | 2.86 | 2.86 | 2.86        | 2.86 |  |
| 1995             | 0.0                           | 0.0   | 0.0   | 67.85   | 60.25          | 53.64  | 49.54       | 59.85  | 2.28 | 2.28           | 2.28 | 2.28 | 2.28        | 2.28 |  |
| 1995             | 0.0                           | 27.3  | 0.0   | 67.85   | 60.25          | 53.64  | 49.54       | 59.85  | 2.32 | 2.32           | 2.32 | 2.32 | 2.32        | 2.32 |  |
| 1995             | 0.0                           | 100.0 | 0.0   | 67.85   | 60.25          | 53.64  | 49.54       | 59.85  | 2.44 | 2.44           | 2.44 | 2.44 | 2.44        | 2.44 |  |
| 1995             | 20.6                          | 0.0   | 20.6  | 67.85   | 60.25          | 53.64  | 49.54       | 59.85  | 2.42 | 2.42           | 2.42 | 2.42 | 2.42        | 2.42 |  |
| 1995             | 20.6                          | 27.3  | 20.6  | 67.85   | 60.25          | 53.64  | 49.54       | 59.85  | 2.47 | 2.47           | 2.47 | 2.47 | 2.47        | 2.47 |  |
| 1995             | 100.0                         | 0.0   | 100.0 | 67.85   | 60.25          | 53.64  | 49.54       | 59.85  | 2.98 | 2.98           | 2.98 | 2.98 | 2.98        | 2.98 |  |

TABLE 9 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |        |       |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|--------|-------|-------|
|                  | PCCN                          | PCNC  | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F    | 75F   | 100F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 80.72                                                           | 77.32          | 74.43  | 72.69 | 88.10 |
| 1975             | 0.0                           | 27.3  | 0.0   | 73.21                                                           | 71.01          | 69.29  | 68.33 | 84.23 |
| 1975             | 0.0                           | 100.0 | 0.0   | 53.20                                                           | 54.23          | 55.58  | 56.73 | 73.94 |
| 1975             | 20.6                          | 0.0   | 20.6  | 130.28                                                          | 103.74         | 86.59  | 78.24 | 86.72 |
| 1975             | 20.6                          | 27.3  | 20.6  | 122.77                                                          | 97.43          | 81.45  | 73.88 | 82.86 |
| 1975             | 100.0                         | 0.0   | 100.0 | 321.30                                                          | 205.57         | 133.46 | 99.65 | 41.42 |
| 1980             | 0.0                           | 0.0   | 0.0   | 69.03                                                           | 61.89          | 55.96  | 52.41 | 76.05 |
| 1980             | 0.0                           | 27.3  | 0.0   | 60.93                                                           | 55.70          | 51.43  | 48.92 | 70.39 |
| 1980             | 0.0                           | 100.0 | 0.0   | 39.35                                                           | 39.20          | 39.34  | 39.61 | 55.32 |
| 1980             | 20.6                          | 0.0   | 20.6  | 120.25                                                          | 87.77          | 67.68  | 58.15 | 74.34 |
| 1980             | 20.6                          | 27.3  | 20.6  | 112.15                                                          | 81.58          | 63.14  | 54.65 | 68.68 |
| 1980             | 100.0                         | 0.0   | 100.0 | 317.68                                                          | 187.52         | 112.84 | 80.24 | 67.75 |
| 1982             | 0.0                           | 0.0   | 0.0   | 63.12                                                           | 55.15          | 48.64  | 44.80 | 68.66 |
| 1982             | 0.0                           | 27.3  | 0.0   | 55.07                                                           | 49.16          | 44.36  | 41.56 | 62.58 |
| 1982             | 0.0                           | 100.0 | 0.0   | 33.64                                                           | 33.20          | 32.96  | 32.93 | 46.40 |
| 1982             | 20.6                          | 0.0   | 20.6  | 107.34                                                          | 77.14          | 58.47  | 49.60 | 66.54 |
| 1982             | 20.6                          | 27.3  | 20.6  | 99.29                                                           | 71.15          | 54.19  | 46.36 | 60.46 |
| 1982             | 100.0                         | 0.0   | 100.0 | 277.75                                                          | 161.89         | 96.36  | 68.12 | 58.36 |



SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | PF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |       |       |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|-------|-------|-------|
|                  | PCCN                          | PHC   | PCCC  | AMBIENT<br>25F                                                  | 50F   | 75F   | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 41.24                                                           | 33.47 | 29.15 | 45.04 |
| 1987             | 0.0                           | 27.3  | 0.0   | 36.32                                                           | 30.43 | 27.15 | 40.73 |
| 1987             | 0.0                           | 100.0 | 0.0   | 23.21                                                           | 22.36 | 21.43 | 29.27 |
| 1987             | 20.6                          | 0.0   | 20.6  | 53.96                                                           | 39.32 | 32.21 | 43.64 |
| 1987             | 20.6                          | 27.3  | 20.6  | 49.04                                                           | 36.29 | 30.22 | 39.34 |
| 1987             | 100.0                         | 0.0   | 100.0 | 102.99                                                          | 61.88 | 44.02 | 38.27 |
| 1990             | 0.0                           | 0.0   | 0.0   | 35.50                                                           | 27.27 | 22.83 | 32.65 |
| 1990             | 0.0                           | 27.3  | 0.0   | 31.28                                                           | 25.01 | 21.60 | 30.00 |
| 1990             | 0.0                           | 100.0 | 0.0   | 20.04                                                           | 18.99 | 18.30 | 22.96 |
| 1990             | 20.6                          | 0.0   | 20.6  | 44.33                                                           | 31.60 | 25.30 | 32.16 |
| 1990             | 20.6                          | 27.3  | 20.6  | 40.11                                                           | 29.33 | 24.07 | 29.51 |
| 1990             | 100.0                         | 0.0   | 100.0 | 78.36                                                           | 48.27 | 34.82 | 30.26 |
| 1995             | 0.0                           | 0.0   | 0.0   | 30.50                                                           | 22.38 | 18.12 | 22.75 |
| 1995             | 0.0                           | 27.3  | 0.0   | 27.04                                                           | 20.83 | 17.53 | 21.60 |
| 1995             | 0.0                           | 100.0 | 0.0   | 17.80                                                           | 16.69 | 15.96 | 18.56 |
| 1995             | 20.6                          | 0.0   | 20.6  | 36.42                                                           | 25.57 | 20.14 | 23.06 |
| 1995             | 20.6                          | 27.3  | 20.6  | 32.95                                                           | 24.02 | 19.55 | 21.91 |
| 1995             | 100.0                         | 0.0   | 100.0 | 59.22                                                           | 37.88 | 27.91 | 24.25 |

TABLE 10  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |        |       | TEMPERATURE |       |        | AMBIENT |       |       | TEMPERATURE |       |       |
|------------------|-------------------------------|-------|-------|---------|--------|-------|-------------|-------|--------|---------|-------|-------|-------------|-------|-------|
|                  | FCOL                          | PCOL  | PCOL  | 0F      | 25F    | 50F   | 75F         | 100F  | 0F     | 25F     | 50F   | 75F   | 100F        | 0F    | 25F   |
| 1975             | 0.0                           | 0.0   | 0.0   | 42.47   | 41.22  | 40.23 | 39.66       | 47.33 | 39.69  | 38.69   | 37.87 | 37.40 | 45.07       | 37.40 | 36.91 |
| 1975             | 0.0                           | 27.3  | 0.0   | 37.84   | 37.30  | 36.98 | 36.87       | 44.90 | 35.32  | 34.98   | 34.82 | 34.81 | 42.96       | 34.81 | 34.81 |
| 1975             | 0.0                           | 100.0 | 0.0   | 25.52   | 26.87  | 28.34 | 29.45       | 38.44 | 23.68  | 25.11   | 26.70 | 27.91 | 36.95       | 27.91 | 27.91 |
| 1975             | 20.6                          | 0.0   | 20.6  | 73.18   | 57.64  | 47.78 | 43.08       | 46.46 | 70.81  | 55.28   | 45.52 | 40.91 | 44.30       | 40.91 | 40.91 |
| 1975             | 20.6                          | 27.3  | 20.6  | 68.55   | 53.72  | 44.53 | 40.29       | 44.03 | 66.43  | 51.58   | 42.47 | 38.32 | 42.08       | 38.32 | 38.32 |
| 1975             | 100.0                         | 0.0   | 100.0 | 191.53  | 120.92 | 76.89 | 56.25       | 43.11 | 190.73 | 118.23  | 75.01 | 54.44 | 41.30       | 54.44 | 54.44 |
| 1980             | 0.0                           | 0.0   | 0.0   | 34.24   | 30.51  | 27.47 | 25.68       | 38.09 | 31.22  | 28.39   | 26.03 | 24.75 | 35.91       | 24.75 | 24.75 |
| 1980             | 0.0                           | 27.3  | 0.0   | 29.28   | 26.69  | 24.67 | 23.52       | 34.59 | 26.98  | 25.12   | 23.68 | 22.89 | 32.89       | 22.89 | 22.89 |
| 1980             | 0.0                           | 100.0 | 0.0   | 15.93   | 16.52  | 17.21 | 17.76       | 25.26 | 15.67  | 16.41   | 17.26 | 17.93 | 25.19       | 17.93 | 17.93 |
| 1980             | 20.6                          | 0.0   | 20.6  | 65.55   | 46.31  | 34.61 | 29.17       | 37.01 | 61.35  | 43.79   | 33.17 | 28.26 | 35.22       | 28.26 | 28.26 |
| 1980             | 20.6                          | 27.3  | 20.6  | 60.56   | 42.49  | 31.81 | 27.01       | 33.51 | 57.10  | 40.52   | 30.75 | 26.40 | 32.30       | 26.40 | 26.40 |
| 1980             | 100.0                         | 0.0   | 100.0 | 186.26  | 107.22 | 62.14 | 42.60       | 32.84 | 177.47 | 103.16  | 60.44 | 41.78 | 32.57       | 41.78 | 41.78 |
| 1982             | 0.0                           | 0.0   | 0.0   | 31.59   | 27.17  | 23.61 | 21.54       | 34.33 | 28.04  | 24.45   | 21.54 | 19.85 | 31.26       | 19.85 | 19.85 |
| 1982             | 0.0                           | 27.3  | 0.0   | 26.55   | 23.42  | 20.93 | 19.51       | 30.52 | 23.90  | 21.37   | 19.35 | 18.20 | 28.16       | 18.20 | 18.20 |
| 1982             | 0.0                           | 100.0 | 0.0   | 13.14   | 13.43  | 13.80 | 14.10       | 20.35 | 12.87  | 13.16   | 13.52 | 13.82 | 19.89       | 13.82 | 13.82 |
| 1982             | 20.6                          | 0.0   | 20.6  | 58.64   | 40.61  | 29.61 | 24.47       | 32.98 | 55.34  | 38.09   | 27.72 | 22.94 | 30.36       | 22.94 | 22.94 |
| 1982             | 20.6                          | 27.3  | 20.6  | 53.61   | 36.86  | 26.93 | 22.43       | 29.16 | 51.20  | 35.01   | 25.53 | 21.29 | 27.25       | 21.29 | 21.29 |
| 1982             | 100.0                         | 0.0   | 100.0 | 162.92  | 92.43  | 52.74 | 35.73       | 27.74 | 160.56 | 90.68   | 51.54 | 34.85 | 26.87       | 34.85 | 34.85 |

TABLE 10 (Continued)

SENSITIVITY OF THE MODELS? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |       | AMBIENT |       |       | TEMPERATURE |       |       | EMISSION FACTORS |       |       |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|-------|---------|-------|-------|-------------|-------|-------|------------------|-------|-------|
|                  | PCCM                          | PCMC  | PCCC  | OF      | 25F   | 50F   | 75F         | 100F  | OF    | 25F     | 50F   | 75F   | 100F        | OF    | 25F   | 50F              | 75F   | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 29.95   | 23.13 | 18.04 | 15.26       | 24.36 | 20.27 | 16.62   | 13.74 | 12.10 | 20.71       | 20.27 | 16.62 | 13.74            | 12.10 | 20.71 |
| 1987             | 0.0                           | 27.3  | 0.0   | 24.87   | 19.82 | 16.03 | 13.25       | 21.54 | 16.85 | 14.18   | 12.09 | 10.90 | 18.10       | 16.85 | 14.18 | 12.09            | 10.90 | 18.10 |
| 1987             | 0.0                           | 100.0 | 0.0   | 11.34   | 10.99 | 10.67 | 10.47       | 14.02 | 7.73  | 7.69    | 7.68  | 7.62  | 11.15       | 7.73  | 7.69  | 7.68             | 7.62  | 11.15 |
| 1987             | 20.6                          | 0.0   | 20.6  | 46.51   | 31.43 | 21.88 | 17.28       | 23.46 | 36.30 | 24.50   | 17.26 | 13.86 | 19.76       | 36.30 | 24.50 | 17.26            | 13.86 | 19.76 |
| 1987             | 20.6                          | 27.3  | 20.6  | 41.44   | 28.12 | 19.87 | 15.97       | 20.64 | 32.89 | 22.06   | 15.61 | 12.66 | 17.15       | 32.89 | 22.06 | 15.61            | 12.66 | 17.15 |
| 1987             | 100.0                         | 0.0   | 100.0 | 110.37  | 63.41 | 36.66 | 25.07       | 20.00 | 98.11 | 54.87   | 30.42 | 20.64 | 16.09       | 98.11 | 54.87 | 30.42            | 20.64 | 16.09 |
| 1990             | 0.0                           | 0.0   | 0.0   | 30.30   | 22.26 | 16.44 | 13.34       | 19.28 | 17.13 | 13.38   | 10.53 | 8.96  | 14.87       | 17.13 | 13.38 | 10.53            | 8.96  | 14.87 |
| 1990             | 0.0                           | 27.3  | 0.0   | 25.23   | 19.23 | 14.85 | 12.50       | 17.47 | 14.22 | 11.44   | 9.33  | 8.16  | 13.06       | 14.22 | 11.44 | 9.33             | 8.16  | 13.06 |
| 1990             | 0.0                           | 100.0 | 0.0   | 11.74   | 11.15 | 10.61 | 10.25       | 12.68 | 6.47  | 6.29    | 6.13  | 6.03  | 8.26        | 6.47  | 6.29  | 6.13             | 6.03  | 8.26  |
| 1990             | 20.6                          | 0.0   | 20.6  | 41.93   | 28.32 | 19.43 | 15.06       | 18.97 | 27.99 | 18.82   | 13.06 | 10.31 | 14.55       | 27.99 | 18.82 | 13.06            | 10.31 | 14.55 |
| 1990             | 20.6                          | 27.3  | 20.6  | 36.86   | 25.29 | 17.84 | 14.22       | 17.17 | 25.02 | 16.88   | 11.86 | 9.51  | 12.55       | 25.02 | 16.88 | 11.86            | 9.51  | 12.55 |
| 1990             | 100.0                         | 0.0   | 100.0 | 86.74   | 51.67 | 30.96 | 21.71       | 17.79 | 69.86 | 39.80   | 22.81 | 15.50 | 12.37       | 69.86 | 39.80 | 22.81            | 15.50 | 12.37 |
| 1995             | 0.0                           | 0.0   | 0.0   | 30.25   | 21.44 | 15.21 | 11.96       | 15.00 | 14.34 | 10.52   | 7.75  | 6.28  | 9.20        | 14.34 | 10.52 | 7.75             | 6.28  | 9.20  |
| 1995             | 0.0                           | 27.3  | 0.0   | 25.33   | 18.72 | 14.01 | 11.52       | 14.17 | 11.98 | 9.12    | 7.04  | 5.92  | 8.36        | 11.98 | 9.12  | 7.04             | 5.92  | 8.36  |
| 1995             | 0.0                           | 100.0 | 0.0   | 12.21   | 11.49 | 10.81 | 10.36       | 11.97 | 5.70  | 5.41    | 5.13  | 4.95  | 6.13        | 5.70  | 5.41  | 5.13             | 4.95  | 6.13  |
| 1995             | 20.6                          | 0.0   | 20.6  | 38.11   | 25.83 | 17.59 | 13.48       | 15.25 | 20.74 | 13.93   | 9.50  | 7.33  | 9.23        | 20.74 | 13.93 | 9.50             | 7.33  | 9.23  |
| 1995             | 20.6                          | 27.3  | 20.6  | 33.18   | 23.11 | 16.39 | 13.04       | 14.42 | 18.38 | 12.53   | 8.78  | 6.97  | 8.39        | 18.38 | 12.53 | 8.78             | 6.97  | 8.39  |
| 1995             | 100.0                         | 0.0   | 100.0 | 68.38   | 42.76 | 26.79 | 18.33       | 16.22 | 45.41 | 27.05   | 16.21 | 11.37 | 9.34        | 45.41 | 27.05 | 16.21            | 11.37 | 9.34  |

TABLE 10 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV**       |      |      |                    | **LDDV** |      |      |                    | TEMPERATURE<br>7°F | 100F |
|------------------|-------------------------------|-------|-------|----------------|------|------|--------------------|----------|------|------|--------------------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  | AMBIENT<br>25F | 50F  | 75F  | TEMPERATURE<br>75F | 0F       | 25F  | 50F  | TEMPERATURE<br>75F |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.63     | 0.63 | 0.63 | 0.63               | 0.63               | 0.63 |
| 1975             | 0.0                           | 27.3  | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.63     | 0.63 | 0.63 | 0.63               | 0.63               | 0.63 |
| 1975             | 0.0                           | 100.0 | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.65     | 0.65 | 0.65 | 0.65               | 0.65               | 0.65 |
| 1975             | 20.6                          | 0.0   | 20.6  | 7.45           | 7.45 | 7.45 | 7.45               | 0.66     | 0.66 | 0.66 | 0.66               | 0.66               | 0.66 |
| 1975             | 20.6                          | 27.3  | 20.6  | 7.45           | 7.45 | 7.45 | 7.45               | 0.67     | 0.67 | 0.67 | 0.67               | 0.67               | 0.67 |
| 1975             | 100.0                         | 0.0   | 100.0 | 7.45           | 7.45 | 7.45 | 7.45               | 0.80     | 0.80 | 0.80 | 0.80               | 0.80               | 0.80 |
| 1980             | 0.0                           | 0.0   | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.81     | 0.81 | 0.81 | 0.81               | 0.81               | 0.81 |
| 1980             | 0.0                           | 27.3  | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.82     | 0.82 | 0.82 | 0.82               | 0.82               | 0.82 |
| 1980             | 0.0                           | 100.0 | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.85     | 0.85 | 0.85 | 0.85               | 0.85               | 0.85 |
| 1980             | 20.6                          | 0.0   | 20.6  | 7.45           | 7.45 | 7.45 | 7.45               | 0.86     | 0.86 | 0.86 | 0.86               | 0.86               | 0.86 |
| 1980             | 20.6                          | 27.3  | 20.6  | 7.45           | 7.45 | 7.45 | 7.45               | 0.87     | 0.87 | 0.87 | 0.87               | 0.87               | 0.87 |
| 1980             | 100.0                         | 0.0   | 100.0 | 7.45           | 7.45 | 7.45 | 7.45               | 1.04     | 1.04 | 1.04 | 1.04               | 1.04               | 1.04 |
| 1982             | 0.0                           | 0.0   | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.76     | 0.76 | 0.76 | 0.76               | 0.76               | 0.76 |
| 1982             | 0.0                           | 27.3  | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.77     | 0.77 | 0.77 | 0.77               | 0.77               | 0.77 |
| 1982             | 0.0                           | 100.0 | 0.0   | 7.45           | 7.45 | 7.45 | 7.45               | 0.80     | 0.80 | 0.80 | 0.80               | 0.80               | 0.80 |
| 1982             | 20.6                          | 0.0   | 20.6  | 7.45           | 7.45 | 7.45 | 7.45               | 0.80     | 0.80 | 0.80 | 0.80               | 0.80               | 0.80 |
| 1982             | 20.6                          | 27.3  | 20.6  | 7.45           | 7.45 | 7.45 | 7.45               | 0.81     | 0.81 | 0.81 | 0.81               | 0.81               | 0.81 |
| 1982             | 100.0                         | 0.0   | 100.0 | 7.45           | 7.45 | 7.45 | 7.45               | 0.98     | 0.98 | 0.98 | 0.98               | 0.98               | 0.98 |

TABLE 10 (Continued)  
SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |      |                    | **LDDV** |      |                |      |                    |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|--------------------|----------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCNC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.76 | 0.76           | 0.76 | 0.76               | 0.76 |
| 1987             | 0.0                           | 27.3  | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.77 | 0.77           | 0.77 | 0.77               | 0.76 |
| 1987             | 0.0                           | 100.0 | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.81 | 0.81           | 0.81 | 0.81               | 0.77 |
| 1987             | 20.6                          | 0.0   | 20.6  | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.81 | 0.81           | 0.81 | 0.81               | 0.81 |
| 1987             | 20.6                          | 27.3  | 20.6  | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.82 | 0.82           | 0.82 | 0.82               | 0.81 |
| 1987             | 100.0                         | 0.0   | 100.0 | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.99 | 0.99           | 0.99 | 0.99               | 0.82 |
|                  |                               |       |       |          |                |      |                    |          |      |                |      |                    | 0.99 |
| 1990             | 0.0                           | 0.0   | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.77 | 0.77           | 0.77 | 0.77               | 0.77 |
| 1990             | 0.0                           | 27.3  | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.78 | 0.78           | 0.78 | 0.78               | 0.77 |
| 1990             | 0.0                           | 100.0 | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.82 | 0.82           | 0.82 | 0.82               | 0.78 |
| 1990             | 20.6                          | 0.0   | 20.6  | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.82 | 0.82           | 0.82 | 0.82               | 0.82 |
| 1990             | 20.6                          | 27.3  | 20.6  | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.83 | 0.83           | 0.83 | 0.83               | 0.82 |
| 1990             | 100.0                         | 0.0   | 100.0 | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 1.00 | 1.00           | 1.00 | 1.00               | 0.83 |
|                  |                               |       |       |          |                |      |                    |          |      |                |      |                    | 1.00 |
| 1995             | 0.0                           | 0.0   | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.79 | 0.79           | 0.79 | 0.79               | 0.79 |
| 1995             | 0.0                           | 27.3  | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.81 | 0.81           | 0.81 | 0.81               | 0.79 |
| 1995             | 0.0                           | 100.0 | 0.0   | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.85 | 0.85           | 0.85 | 0.85               | 0.81 |
| 1995             | 20.6                          | 0.0   | 20.6  | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.84 | 0.84           | 0.84 | 0.84               | 0.85 |
| 1995             | 20.6                          | 27.3  | 20.6  | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 0.86 | 0.86           | 0.86 | 0.86               | 0.84 |
| 1995             | 100.0                         | 0.0   | 100.0 | 7.45     | 7.45           | 7.45 | 7.45               | 7.45     | 1.04 | 1.04           | 1.04 | 1.04               | 0.86 |
|                  |                               |       |       |          |                |      |                    |          |      |                |      |                    | 1.04 |

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

TABLE 10 (Continued)

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |        |        | TEMPERATURE |        |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|--------|--------|-------------|--------|------|---------|------|------|-------------|------|------|
|                  | PCCC                          | PHCC  | PCCC  | OF      | 25F    | 50F    | 75F         | 100F   | OF   | 25F     | 50F  | 75F  | 100F        | OF   | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 180.16  | 164.48 | 150.29 | 141.16      | 176.63 | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 9.0                           | 27.3  | 0.0   | 180.16  | 164.48 | 150.29 | 141.16      | 176.63 | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 180.16  | 164.48 | 150.29 | 141.16      | 176.63 | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 180.16  | 164.48 | 150.29 | 141.16      | 176.63 | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 180.16  | 164.48 | 150.29 | 141.16      | 176.63 | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 180.16  | 164.48 | 150.29 | 141.16      | 176.63 | 0.0  | 0.0     | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 173.36  | 157.82 | 143.80 | 134.79      | 179.86 | 1.09 | 1.09    | 1.09 | 1.09 | 1.09        | 1.09 | 1.09 |
| 1980             | 9.0                           | 27.3  | 0.0   | 173.36  | 157.82 | 143.80 | 134.79      | 179.86 | 1.11 | 1.11    | 1.11 | 1.11 | 1.11        | 1.11 | 1.11 |
| 1980             | 0.0                           | 100.0 | 0.0   | 173.36  | 157.82 | 143.80 | 134.79      | 179.86 | 1.14 | 1.14    | 1.14 | 1.14 | 1.14        | 1.14 | 1.14 |
| 1980             | 20.6                          | 0.0   | 20.6  | 173.36  | 157.82 | 143.80 | 134.79      | 179.86 | 1.16 | 1.16    | 1.16 | 1.16 | 1.16        | 1.16 | 1.16 |
| 1980             | 20.6                          | 27.3  | 20.6  | 173.36  | 157.82 | 143.80 | 134.79      | 179.86 | 1.17 | 1.17    | 1.17 | 1.17 | 1.17        | 1.17 | 1.17 |
| 1980             | 100.0                         | 0.0   | 100.0 | 173.36  | 157.82 | 143.80 | 134.79      | 179.86 | 1.41 | 1.41    | 1.41 | 1.41 | 1.41        | 1.41 | 1.41 |
| 1982             | 0.0                           | 0.0   | 0.0   | 157.75  | 145.37 | 134.13 | 126.88      | 170.28 | 1.12 | 1.12    | 1.12 | 1.12 | 1.12        | 1.12 | 1.12 |
| 1982             | 0.0                           | 27.3  | 0.0   | 157.75  | 145.37 | 134.13 | 126.88      | 170.28 | 1.13 | 1.13    | 1.13 | 1.13 | 1.13        | 1.13 | 1.13 |
| 1982             | 0.0                           | 100.0 | 0.0   | 157.75  | 145.37 | 134.13 | 126.88      | 170.28 | 1.18 | 1.18    | 1.18 | 1.18 | 1.18        | 1.18 | 1.18 |
| 1982             | 20.6                          | 0.0   | 20.6  | 157.75  | 145.37 | 134.13 | 126.88      | 170.28 | 1.18 | 1.18    | 1.18 | 1.18 | 1.18        | 1.18 | 1.18 |
| 1982             | 20.6                          | 27.3  | 20.6  | 157.75  | 145.37 | 134.13 | 126.88      | 170.28 | 1.20 | 1.20    | 1.20 | 1.20 | 1.20        | 1.20 | 1.20 |
| 1982             | 100.0                         | 0.0   | 100.0 | 157.75  | 145.37 | 134.13 | 126.88      | 170.28 | 1.44 | 1.44    | 1.44 | 1.44 | 1.44        | 1.44 | 1.44 |



TABLE 10 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0+-----MPH

| CALCULAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE | AMBIENT |      |      | TEMPERATURE | AMBIENT |      |      | TEMPERATURE |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|---------|------|------|-------------|---------|------|------|-------------|
|                  | PCCN                          | PCMC  | PCCC  | OF      | 25F   | 50F   | 75F         | OF      | 25F  | 50F  | 75F         | OF      | 25F  | 50F  | 75F         |
| 1987             | 0.0                           | 0.0   | 0.0   | 92.03   | 85.55 | 79.68 | 75.91       | 101.92  | 1.19 | 1.19 | 1.19        | 1.19    | 1.19 | 1.19 | 1.19        |
| 1987             | 0.0                           | 27.3  | 0.0   | 92.03   | 85.55 | 79.68 | 75.91       | 101.92  | 1.21 | 1.21 | 1.21        | 1.21    | 1.21 | 1.21 | 1.21        |
| 1987             | 0.0                           | 100.0 | 0.0   | 92.03   | 85.55 | 79.68 | 75.91       | 101.92  | 1.26 | 1.26 | 1.26        | 1.26    | 1.26 | 1.26 | 1.26        |
| 1987             | 20.6                          | 0.0   | 20.6  | 92.03   | 85.55 | 79.68 | 75.91       | 101.92  | 1.26 | 1.26 | 1.26        | 1.26    | 1.26 | 1.26 | 1.26        |
| 1987             | 20.6                          | 27.3  | 20.6  | 92.03   | 85.55 | 79.68 | 75.91       | 101.92  | 1.28 | 1.28 | 1.28        | 1.28    | 1.28 | 1.28 | 1.28        |
| 1987             | 100.0                         | 0.0   | 100.0 | 92.03   | 85.55 | 79.68 | 75.91       | 101.92  | 1.55 | 1.55 | 1.55        | 1.55    | 1.55 | 1.55 | 1.55        |
| 1990             | 0.0                           | 0.0   | 0.0   | 59.13   | 53.94 | 49.36 | 46.46       | 60.78   | 1.21 | 1.21 | 1.21        | 1.21    | 1.21 | 1.21 | 1.21        |
| 1990             | 0.0                           | 27.3  | 0.0   | 59.13   | 53.94 | 49.36 | 46.46       | 60.78   | 1.24 | 1.24 | 1.24        | 1.24    | 1.24 | 1.24 | 1.24        |
| 1990             | 0.0                           | 100.0 | 0.0   | 59.13   | 53.94 | 49.36 | 46.46       | 60.78   | 1.30 | 1.30 | 1.30        | 1.30    | 1.30 | 1.30 | 1.30        |
| 1990             | 20.6                          | 0.0   | 20.6  | 59.13   | 53.94 | 49.36 | 46.46       | 60.78   | 1.29 | 1.29 | 1.29        | 1.29    | 1.29 | 1.29 | 1.29        |
| 1990             | 20.6                          | 27.3  | 20.6  | 59.13   | 53.94 | 49.36 | 46.46       | 60.78   | 1.31 | 1.31 | 1.31        | 1.31    | 1.31 | 1.31 | 1.31        |
| 1990             | 100.0                         | 0.0   | 100.0 | 59.13   | 53.94 | 49.36 | 46.46       | 60.78   | 1.58 | 1.58 | 1.58        | 1.58    | 1.58 | 1.58 | 1.58        |
| 1995             | 0.0                           | 0.0   | 0.0   | 37.63   | 33.59 | 29.91 | 27.62       | 33.37   | 1.26 | 1.26 | 1.26        | 1.26    | 1.26 | 1.26 | 1.26        |
| 1995             | 0.0                           | 27.3  | 0.0   | 37.63   | 33.59 | 29.91 | 27.62       | 33.37   | 1.29 | 1.29 | 1.29        | 1.29    | 1.29 | 1.29 | 1.29        |
| 1995             | 0.0                           | 100.0 | 0.0   | 37.63   | 33.59 | 29.91 | 27.62       | 33.37   | 1.35 | 1.35 | 1.35        | 1.35    | 1.35 | 1.35 | 1.35        |
| 1995             | 20.6                          | 0.0   | 20.6  | 37.63   | 33.59 | 29.91 | 27.62       | 33.37   | 1.34 | 1.34 | 1.34        | 1.34    | 1.34 | 1.34 | 1.34        |
| 1995             | 20.6                          | 27.3  | 20.6  | 37.63   | 33.59 | 29.91 | 27.62       | 33.37   | 1.37 | 1.37 | 1.37        | 1.37    | 1.37 | 1.37 | 1.37        |
| 1995             | 100.0                         | 0.0   | 100.0 | 37.63   | 33.59 | 29.91 | 27.62       | 33.37   | 1.65 | 1.65 | 1.65        | 1.65    | 1.65 | 1.65 | 1.65        |

TABLE 10 (continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |       |       |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|-------|-------|-------|
|                  | PCCN                          | PCMC  | PCCC  | AF                                                              | AMBIENT<br>25F | 50F   | 75F   | 100F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 46.54                                                           | 44.78          | 45.30 | 42.42 | 50.94 |
| 1975             | 0.0                           | 27.3  | 0.0   | 42.32                                                           | 41.20          | 40.34 | 39.88 | 48.73 |
| 1975             | 0.0                           | 100.0 | 0.0   | 51.09                                                           | 31.68          | 32.46 | 33.11 | 42.86 |
| 1975             | 20.6                          | 0.0   | 20.6  | 74.81                                                           | 59.89          | 50.26 | 45.57 | 50.15 |
| 1975             | 20.6                          | 27.3  | 20.6  | 70.59                                                           | 56.32          | 47.30 | 43.03 | 47.95 |
| 1975             | 100.0                         | 0.0   | 100.0 | 183.77                                                          | 118.14         | 77.07 | 57.72 | 47.13 |
| 1980             | 0.0                           | 0.0   | 0.0   | 38.46                                                           | 34.53          | 31.27 | 29.32 | 42.36 |
| 1980             | 0.0                           | 27.3  | 0.0   | 33.99                                                           | 31.11          | 28.76 | 27.38 | 39.24 |
| 1980             | 0.0                           | 100.0 | 0.0   | 22.10                                                           | 22.01          | 22.07 | 22.21 | 30.93 |
| 1980             | 20.6                          | 0.0   | 20.6  | 66.91                                                           | 48.92          | 37.79 | 32.51 | 41.42 |
| 1980             | 20.6                          | 27.3  | 20.6  | 62.44                                                           | 45.50          | 35.28 | 30.57 | 38.30 |
| 1980             | 100.0                         | 0.0   | 100.0 | 176.58                                                          | 104.37         | 62.91 | 44.79 | 37.80 |
| 1982             | 0.0                           | 0.0   | 0.0   | 35.04                                                           | 30.63          | 27.02 | 24.90 | 38.09 |
| 1982             | 0.0                           | 27.3  | 0.0   | 30.60                                                           | 27.32          | 24.66 | 23.11 | 34.74 |
| 1982             | 0.0                           | 100.0 | 0.0   | 18.77                                                           | 18.51          | 18.37 | 18.34 | 25.80 |
| 1982             | 20.6                          | 0.0   | 20.6  | 59.55                                                           | 42.82          | 32.48 | 27.57 | 36.83 |
| 1982             | 20.6                          | 27.3  | 20.6  | 55.11                                                           | 39.51          | 30.12 | 25.78 | 33.57 |
| 1982             | 100.0                         | 0.0   | 100.0 | 159.02                                                          | 89.82          | 53.50 | 37.85 | 32.43 |



TABLE 10 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |       |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|-------|-------|
|                  | PCCW                          | PCMC  | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F   | 75F   |
| 1987             | 0.0                           | 0.0   | 0.0   | 28.63                                                           | 22.92          | 18.59 | 16.19 |
| 1987             | 0.0                           | 27.3  | 0.0   | 28.48                                                           | 20.19          | 16.91 | 15.08 |
| 1987             | 0.0                           | 100.0 | 0.0   | 13.45                                                           | 12.91          | 12.44 | 12.14 |
| 1987             | 20.6                          | 0.0   | 20.6  | 42.78                                                           | 29.99          | 21.85 | 17.90 |
| 1987             | 20.6                          | 27.3  | 20.6  | 38.64                                                           | 27.26          | 20.17 | 16.79 |
| 1987             | 100.0                         | 0.0   | 100.0 | 97.34                                                           | 57.26          | 34.40 | 24.47 |
| 1990             | 0.0                           | 0.0   | 0.0   | 25.99                                                           | 19.73          | 15.15 | 12.68 |
| 1990             | 0.0                           | 27.3  | 0.0   | 22.11                                                           | 17.39          | 13.89 | 12.00 |
| 1990             | 0.0                           | 100.0 | 0.0   | 11.78                                                           | 11.14          | 10.55 | 10.17 |
| 1990             | 20.6                          | 0.0   | 20.6  | 35.44                                                           | 24.63          | 17.55 | 14.05 |
| 1990             | 20.6                          | 27.3  | 20.6  | 31.56                                                           | 22.29          | 16.30 | 13.37 |
| 1990             | 100.0                         | 0.0   | 100.0 | 71.88                                                           | 43.53          | 26.81 | 19.34 |
| 1995             | 0.0                           | 0.0   | 0.0   | 23.31                                                           | 16.98          | 12.46 | 10.08 |
| 1995             | 0.0                           | 27.3  | 0.0   | 19.84                                                           | 15.05          | 11.59 | 9.76  |
| 1995             | 0.0                           | 100.0 | 0.0   | 10.58                                                           | 9.91           | 9.29  | 8.88  |
| 1995             | 20.6                          | 0.0   | 20.6  | 29.24                                                           | 20.27          | 14.23 | 11.21 |
| 1995             | 20.6                          | 27.3  | 20.6  | 25.76                                                           | 18.34          | 13.37 | 10.88 |
| 1995             | 100.0                         | 0.0   | 100.0 | 52.06                                                           | 32.95          | 21.08 | 15.53 |
|                  |                               |       |       |                                                                 |                |       | 13.49 |
|                  |                               |       |       |                                                                 |                |       | 12.66 |
|                  |                               |       |       |                                                                 |                |       | 12.02 |
|                  |                               |       |       |                                                                 |                |       | 10.33 |
|                  |                               |       |       |                                                                 |                |       | 12.83 |
|                  |                               |       |       |                                                                 |                |       | 12.19 |
|                  |                               |       |       |                                                                 |                |       | 16.82 |

TABLE II  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |        | **LDGT** |       |       | TEMPERATURE |       |       |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|--------|----------|-------|-------|-------------|-------|-------|
|                  | PCCH                          | PHCH  | PCCH  | 0F      | 25F   | 50F   | 75F         | 100F  | 0F     | 25F      | 50F   | 75F   | 100F        | 0F    | 75F   |
| 1975             | 0.0                           | 0.0   | 0.0   | 32.81   | 31.97 | 31.32 | 30.96       | 36.73 | 30.33  | 29.65    | 29.11 | 28.80 | 34.58       | 28.80 | 100F  |
| 1975             | 0.0                           | 27.3  | 0.0   | 29.32   | 29.00 | 28.83 | 28.80       | 34.87 | 27.06  | 26.86    | 26.80 | 26.83 | 32.89       | 26.83 | 34.58 |
| 1975             | 0.0                           | 100.0 | 0.0   | 20.04   | 21.07 | 22.21 | 23.06       | 29.93 | 18.34  | 19.44    | 20.64 | 21.56 | 28.39       | 21.56 | 32.89 |
| 1975             | 20.6                          | 0.0   | 20.6  | 56.39   | 44.58 | 37.12 | 33.58       | 36.08 | 53.90  | 42.25    | 34.93 | 31.47 | 34.01       | 31.47 | 28.39 |
| 1975             | 20.6                          | 27.3  | 20.6  | 52.85   | 41.60 | 34.64 | 31.42       | 34.22 | 50.63  | 39.46    | 32.62 | 29.49 | 32.32       | 29.49 | 34.01 |
| 1975             | 100.0                         | 0.0   | 100.0 | 147.02  | 93.18 | 59.50 | 43.66       | 33.57 | 144.75 | 90.81    | 57.35 | 41.74 | 31.82       | 41.74 | 32.32 |
| 1980             | 0.0                           | 0.0   | 0.0   | 27.33   | 24.27 | 21.78 | 20.32       | 30.41 | 24.93  | 22.57    | 20.67 | 19.56 | 28.61       | 19.56 | 31.82 |
| 1980             | 0.0                           | 27.3  | 0.0   | 23.36   | 21.25 | 19.58 | 18.62       | 27.59 | 21.56  | 19.99    | 18.77 | 18.10 | 26.26       | 18.10 | 28.61 |
| 1980             | 0.0                           | 100.0 | 0.0   | 12.77   | 13.20 | 13.71 | 14.12       | 20.08 | 12.56  | 13.10    | 13.73 | 14.23 | 19.99       | 14.23 | 26.26 |
| 1980             | 20.6                          | 0.0   | 20.6  | 52.72   | 37.07 | 27.57 | 23.17       | 29.57 | 49.32  | 35.02    | 26.40 | 22.42 | 28.09       | 22.42 | 19.99 |
| 1980             | 20.6                          | 27.3  | 20.6  | 48.75   | 34.05 | 25.37 | 21.47       | 26.75 | 45.94  | 32.44    | 24.50 | 20.96 | 25.74       | 20.96 | 28.09 |
| 1980             | 100.0                         | 0.0   | 100.0 | 150.59  | 86.39 | 49.91 | 34.14       | 26.34 | 143.29 | 83.01    | 48.48 | 33.44 | 26.08       | 33.44 | 24.50 |
| 1982             | 0.0                           | 0.0   | 0.0   | 25.78   | 22.06 | 19.08 | 17.35       | 27.95 | 22.92  | 19.89    | 17.44 | 16.01 | 25.49       | 16.01 | 48.48 |
| 1982             | 0.0                           | 27.3  | 0.0   | 21.67   | 19.02 | 16.92 | 15.72       | 24.81 | 18.54  | 17.38    | 15.67 | 14.70 | 22.83       | 14.70 | 17.44 |
| 1982             | 0.0                           | 100.0 | 0.0   | 10.72   | 10.91 | 11.17 | 11.38       | 16.44 | 10.51  | 10.71    | 10.97 | 11.18 | 16.12       | 11.18 | 15.67 |
| 1982             | 20.6                          | 0.0   | 20.6  | 48.06   | 33.12 | 24.02 | 19.78       | 26.85 | 45.48  | 31.15    | 22.55 | 18.58 | 24.77       | 18.58 | 10.97 |
| 1982             | 20.6                          | 27.3  | 20.6  | 43.94   | 30.08 | 21.86 | 18.15       | 23.71 | 42.09  | 28.64    | 20.78 | 17.26 | 22.21       | 17.26 | 22.55 |
| 1982             | 100.0                         | 0.0   | 100.0 | 133.92  | 75.74 | 43.08 | 29.12       | 22.62 | 132.44 | 74.55    | 42.23 | 28.49 | 21.98       | 28.49 | 20.78 |

TABLE 11 (Continued)

SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD-START START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)      SPEED = 50.0 \*\*\*\*\*MPH

[illegible]

TABLE II (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | ***HNDV**      |      |      | ***LDDV**      |      |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|------|------|----------------|------|------|--------------------|------|
|                  | PCCH                          | PCNC  | PCCC  | AMBIENT<br>25F | 50F  | 75F  | AMBIENT<br>25F | 50F  | 75F  |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.35           | 6.35 | 6.35 | 0.53           | 0.53 | 0.53 | 0.53               | 0.53 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.35           | 6.35 | 6.35 | 0.54           | 0.54 | 0.54 | 0.54               | 0.54 |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.35           | 6.35 | 6.35 | 0.56           | 0.56 | 0.56 | 0.56               | 0.56 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.35           | 6.35 | 6.35 | 0.57           | 0.57 | 0.57 | 0.57               | 0.57 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.35           | 6.35 | 6.35 | 0.57           | 0.57 | 0.57 | 0.57               | 0.57 |
| 1975             | 100.0                         | 0.0   | 100.0 | 6.35           | 6.35 | 6.35 | 0.69           | 0.69 | 0.69 | 0.69               | 0.69 |
| 1980             | 0.0                           | 0.0   | 0.0   | 6.35           | 6.35 | 6.35 | 0.69           | 0.69 | 0.69 | 0.69               | 0.69 |
| 1980             | 0.0                           | 27.3  | 0.0   | 6.35           | 6.35 | 6.35 | 0.70           | 0.70 | 0.70 | 0.70               | 0.70 |
| 1980             | 0.0                           | 100.0 | 0.0   | 6.35           | 6.35 | 6.35 | 0.73           | 0.73 | 0.73 | 0.73               | 0.73 |
| 1980             | 20.6                          | 0.0   | 20.6  | 6.35           | 6.35 | 6.35 | 0.73           | 0.73 | 0.73 | 0.73               | 0.73 |
| 1980             | 20.6                          | 27.3  | 20.6  | 6.35           | 6.35 | 6.35 | 0.74           | 0.74 | 0.74 | 0.74               | 0.74 |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.35           | 6.35 | 6.35 | 0.89           | 0.89 | 0.89 | 0.89               | 0.89 |
| 1982             | 0.0                           | 0.0   | 0.0   | 6.35           | 6.35 | 6.35 | 0.64           | 0.64 | 0.64 | 0.64               | 0.64 |
| 1982             | 0.0                           | 27.3  | 0.0   | 6.35           | 6.35 | 6.35 | 0.65           | 0.65 | 0.65 | 0.65               | 0.65 |
| 1982             | 0.0                           | 100.0 | 0.0   | 6.35           | 6.35 | 6.35 | 0.68           | 0.68 | 0.68 | 0.68               | 0.68 |
| 1982             | 20.6                          | 0.0   | 20.6  | 6.35           | 6.35 | 6.35 | 0.68           | 0.68 | 0.68 | 0.68               | 0.68 |
| 1982             | 20.6                          | 27.3  | 20.6  | 6.35           | 6.35 | 6.35 | 0.69           | 0.69 | 0.69 | 0.69               | 0.69 |
| 1982             | 100.0                         | 0.0   | 100.0 | 6.35           | 6.35 | 6.35 | 0.83           | 0.83 | 0.83 | 0.83               | 0.83 |

TABLE 11 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0+\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      | SPEED |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|-------|
|                  | PCCH                          | PCMC  | PCCC  | OF      | 25F  | 50F  | 75F         | 100F | OF   | 25F     | 50F  | 75F  | 100F        | OF   | 25F  |       |
| 1987             | 0.0                           | 0.0   | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 6.65 | 0.65    | 0.65 | 0.65 | 0.65        | 0.65 | 0.65 | 0.65  |
| 1987             | 0.0                           | 27.3  | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.66 | 0.66    | 0.66 | 0.66 | 0.66        | 0.66 | 0.66 | 0.66  |
| 1987             | 0.0                           | 100.0 | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.69 | 0.69    | 0.69 | 0.69 | 0.69        | 0.69 | 0.69 | 0.69  |
| 1987             | 20.6                          | 0.0   | 20.6  | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.69 | 0.69    | 0.69 | 0.69 | 0.69        | 0.69 | 0.69 | 0.69  |
| 1987             | 20.6                          | 27.3  | 20.6  | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.70 | 0.70    | 0.70 | 0.70 | 0.70        | 0.70 | 0.70 | 0.70  |
| 1987             | 100.0                         | 0.0   | 100.0 | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.84 | 0.84    | 0.84 | 0.84 | 0.84        | 0.84 | 0.84 | 0.84  |
| 1990             | 0.0                           | 0.0   | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.65 | 0.65    | 0.65 | 0.65 | 0.65        | 0.65 | 0.65 | 0.65  |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.67 | 0.67    | 0.67 | 0.67 | 0.67        | 0.67 | 0.67 | 0.67  |
| 1990             | 0.0                           | 100.0 | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.70 | 0.70    | 0.70 | 0.70 | 0.70        | 0.70 | 0.70 | 0.70  |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.70 | 0.70    | 0.70 | 0.70 | 0.70        | 0.70 | 0.70 | 0.70  |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.71 | 0.71    | 0.71 | 0.71 | 0.71        | 0.71 | 0.71 | 0.71  |
| 1990             | 100.0                         | 0.0   | 100.0 | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.85 | 0.85    | 0.85 | 0.85 | 0.85        | 0.85 | 0.85 | 0.85  |
| 1995             | 0.0                           | 0.0   | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.68 | 0.68    | 0.68 | 0.68 | 0.68        | 0.68 | 0.68 | 0.68  |
| 1995             | 0.0                           | 27.3  | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.69 | 0.69    | 0.69 | 0.69 | 0.69        | 0.69 | 0.69 | 0.69  |
| 1995             | 0.0                           | 100.0 | 0.0   | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.73 | 0.73    | 0.73 | 0.73 | 0.73        | 0.73 | 0.73 | 0.73  |
| 1995             | 20.6                          | 0.0   | 20.6  | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.72 | 0.72    | 0.72 | 0.72 | 0.72        | 0.72 | 0.72 | 0.72  |
| 1995             | 20.6                          | 27.3  | 20.6  | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.73 | 0.73    | 0.73 | 0.73 | 0.73        | 0.73 | 0.73 | 0.73  |
| 1995             | 100.0                         | 0.0   | 100.0 | 6.35    | 6.35 | 6.35 | 6.35        | 6.35 | 0.88 | 0.88    | 0.88 | 0.88 | 0.88        | 0.88 | 0.88 | 0.88  |

TABLE II (Cont Inued)  
 SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>25F | HDDGV.. |        |        | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | ..LDDY.. |      |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|---------|--------|--------|--------------------|------|------|----------------|----------|------|------|--------------------|------|
|                  | PCCC                          | PHC   | PCCC  |                | 50F     | 75F    | 100F   |                    |      |      |                | 50F      | 75F  | 100F |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 168.40         | 140.48  | 131.95 | 165.10 | 0.0                | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 168.40         | 140.48  | 131.95 | 165.10 | 0.0                | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 168.40         | 140.48  | 131.95 | 165.10 | 0.0                | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 168.40         | 140.48  | 131.95 | 165.10 | 0.0                | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 168.40         | 140.48  | 131.95 | 165.10 | 0.0                | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 168.40         | 140.48  | 131.95 | 165.10 | 0.0                | 0.0  | 0.0  | 0.0            | 0.0      | 0.0  | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 162.04         | 134.41  | 126.00 | 168.12 | 0.93               | 0.93 | 0.93 | 0.93           | 0.93     | 0.93 | 0.93 | 0.93               | 0.93 |
| 1980             | 0.0                           | 27.3  | 0.0   | 162.04         | 134.41  | 126.00 | 168.12 | 0.94               | 0.94 | 0.94 | 0.94           | 0.94     | 0.94 | 0.94 | 0.94               | 0.94 |
| 1980             | 0.0                           | 100.0 | 0.0   | 162.04         | 134.41  | 126.00 | 168.12 | 0.98               | 0.98 | 0.98 | 0.98           | 0.98     | 0.98 | 0.98 | 0.98               | 0.98 |
| 1980             | 20.6                          | 0.0   | 20.6  | 162.04         | 134.41  | 126.00 | 168.12 | 0.98               | 0.98 | 0.98 | 0.98           | 0.98     | 0.98 | 0.98 | 0.98               | 0.98 |
| 1980             | 20.6                          | 27.3  | 20.6  | 162.04         | 134.41  | 126.00 | 168.12 | 1.00               | 1.00 | 1.00 | 1.00           | 1.00     | 1.00 | 1.00 | 1.00               | 1.00 |
| 1980             | 100.0                         | 0.0   | 100.0 | 162.04         | 134.41  | 126.00 | 168.12 | 1.20               | 1.20 | 1.20 | 1.20           | 1.20     | 1.20 | 1.20 | 1.20               | 1.20 |
| 1982             | 0.0                           | 0.0   | 0.0   | 147.46         | 125.38  | 118.60 | 159.16 | 0.95               | 0.95 | 0.95 | 0.95           | 0.95     | 0.95 | 0.95 | 0.95               | 0.95 |
| 1982             | 0.0                           | 27.3  | 0.0   | 147.46         | 125.38  | 118.60 | 159.16 | 0.97               | 0.97 | 0.97 | 0.97           | 0.97     | 0.97 | 0.97 | 0.97               | 0.97 |
| 1982             | 0.0                           | 100.0 | 0.0   | 147.46         | 125.38  | 118.60 | 159.16 | 1.00               | 1.00 | 1.00 | 1.00           | 1.00     | 1.00 | 1.00 | 1.00               | 1.00 |
| 1982             | 20.6                          | 0.0   | 20.6  | 147.46         | 125.38  | 118.60 | 159.16 | 1.01               | 1.01 | 1.01 | 1.01           | 1.01     | 1.01 | 1.01 | 1.01               | 1.01 |
| 1982             | 20.6                          | 27.3  | 20.6  | 147.46         | 125.38  | 118.60 | 159.16 | 1.02               | 1.02 | 1.02 | 1.02           | 1.02     | 1.02 | 1.02 | 1.02               | 1.02 |
| 1982             | 100.0                         | 0.0   | 100.0 | 147.46         | 125.38  | 118.60 | 159.16 | 1.23               | 1.23 | 1.23 | 1.23           | 1.23     | 1.23 | 1.23 | 1.23               | 1.23 |



TABLE II (Cont Inmed)

SENSITIVITY OF T<sub>1</sub> MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|------|---------|------|------|-------------|------|------|
|                  | PCCH                          | PHCH  | PCCH  | 0F      | 25F   | 50F   | 75F         | 100F  | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 86.02   | 79.96 | 74.48 | 70.96       | 95.27 | 1.01 | 1.01    | 1.01 | 1.01 | 1.01        | 1.01 | 1.01 |
| 1987             | 0.0                           | 27.3  | 0.0   | 86.02   | 79.96 | 74.48 | 70.96       | 95.27 | 1.03 | 1.03    | 1.03 | 1.03 | 1.03        | 1.03 | 1.03 |
| 1987             | 0.0                           | 100.0 | 0.0   | 86.02   | 79.96 | 74.48 | 70.96       | 95.27 | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |
| 1987             | 20.6                          | 0.0   | 20.6  | 86.02   | 79.96 | 74.48 | 70.96       | 95.27 | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |
| 1987             | 20.6                          | 27.3  | 20.6  | 86.02   | 79.96 | 74.48 | 70.96       | 95.27 | 1.09 | 1.09    | 1.09 | 1.09 | 1.09        | 1.09 | 1.09 |
| 1987             | 100.0                         | 0.0   | 100.0 | 86.02   | 79.96 | 74.48 | 70.96       | 95.27 | 1.32 | 1.32    | 1.32 | 1.32 | 1.32        | 1.32 | 1.32 |
| 1990             | 0.0                           | 0.0   | 0.0   | 55.27   | 50.42 | 46.13 | 43.43       | 56.81 | 1.04 | 1.04    | 1.04 | 1.04 | 1.04        | 1.04 | 1.04 |
| 1990             | 0.0                           | 27.3  | 0.0   | 55.27   | 50.42 | 46.13 | 43.43       | 56.81 | 1.05 | 1.05    | 1.05 | 1.05 | 1.05        | 1.05 | 1.05 |
| 1990             | 0.0                           | 100.0 | 0.0   | 55.27   | 50.42 | 46.13 | 43.43       | 56.81 | 1.10 | 1.10    | 1.10 | 1.10 | 1.10        | 1.10 | 1.10 |
| 1990             | 20.6                          | 0.0   | 20.6  | 55.27   | 50.42 | 46.13 | 43.43       | 56.81 | 1.10 | 1.10    | 1.10 | 1.10 | 1.10        | 1.10 | 1.10 |
| 1990             | 20.6                          | 27.3  | 20.6  | 55.27   | 50.42 | 46.13 | 43.43       | 56.81 | 1.12 | 1.12    | 1.12 | 1.12 | 1.12        | 1.12 | 1.12 |
| 1990             | 100.0                         | 0.0   | 100.0 | 55.27   | 50.42 | 46.13 | 43.43       | 56.81 | 1.35 | 1.35    | 1.35 | 1.35 | 1.35        | 1.35 | 1.35 |
| 1995             | 0.0                           | 0.0   | 0.0   | 35.36   | 31.40 | 27.95 | 25.82       | 31.19 | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |
| 1995             | 0.0                           | 27.3  | 0.0   | 35.36   | 31.40 | 27.95 | 25.82       | 31.19 | 1.10 | 1.10    | 1.10 | 1.10 | 1.10        | 1.10 | 1.10 |
| 1995             | 0.0                           | 100.0 | 0.0   | 35.36   | 31.40 | 27.95 | 25.82       | 31.19 | 1.15 | 1.15    | 1.15 | 1.15 | 1.15        | 1.15 | 1.15 |
| 1995             | 20.6                          | 0.0   | 20.6  | 35.36   | 31.40 | 27.95 | 25.82       | 31.19 | 1.14 | 1.14    | 1.14 | 1.14 | 1.14        | 1.14 | 1.14 |
| 1995             | 20.6                          | 27.3  | 20.6  | 35.36   | 31.40 | 27.95 | 25.82       | 31.19 | 1.17 | 1.17    | 1.17 | 1.17 | 1.17        | 1.17 | 1.17 |
| 1995             | 100.0                         | 0.0   | 100.0 | 35.36   | 31.40 | 27.95 | 25.82       | 31.19 | 1.41 | 1.41    | 1.41 | 1.41 | 1.41        | 1.41 | 1.41 |

TABLE II (Continued)  
 SENSITIVITY OF THE MORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | OF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |       |                         |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|-------|-------------------------|
|                  | PCCN                          | PHC   | PCCC  | AMBIENT<br>TEMP<br>25F                                          | 50F   | TEMPERATURE<br>75F 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 37.17                                                           | 35.81 | 34.68 34.00 40.69       |
| 1975             | 0.0                           | 27.3  | 0.0   | 33.99                                                           | 33.10 | 32.41 32.04 39.00       |
| 1975             | 0.0                           | 100.0 | 0.0   | 25.54                                                           | 25.88 | 26.37 26.81 34.51       |
| 1975             | 20.6                          | 0.0   | 20.6  | 58.80                                                           | 47.40 | 40.02 36.41 40.10       |
| 1975             | 20.6                          | 27.3  | 20.6  | 55.62                                                           | 44.69 | 37.75 34.45 38.42       |
| 1975             | 100.0                         | 0.0   | 100.0 | 142.18                                                          | 92.09 | 60.60 45.71 37.84       |
| 1980             | 0.0                           | 0.0   | 0.0   | 31.70                                                           | 28.40 | 25.66 24.02 34.85       |
| 1980             | 0.0                           | 27.3  | 0.0   | 28.15                                                           | 25.69 | 23.68 22.50 32.34       |
| 1980             | 0.0                           | 100.0 | 0.0   | 18.70                                                           | 18.50 | 18.43 18.46 25.65       |
| 1980             | 20.6                          | 0.0   | 20.6  | 54.76                                                           | 40.04 | 30.94 26.62 34.12       |
| 1980             | 20.6                          | 27.3  | 20.6  | 51.21                                                           | 37.34 | 28.97 25.10 31.61       |
| 1980             | 100.0                         | 0.0   | 100.0 | 143.63                                                          | 84.92 | 51.31 36.65 31.33       |
| 1982             | 0.0                           | 0.0   | 0.0   | 29.38                                                           | 25.62 | 22.56 20.75 31.88       |
| 1982             | 0.0                           | 27.3  | 0.0   | 25.75                                                           | 22.94 | 20.66 19.32 29.12       |
| 1982             | 0.0                           | 100.0 | 0.0   | 16.10                                                           | 15.80 | 15.59 15.50 21.77       |
| 1982             | 20.6                          | 0.0   | 20.6  | 49.56                                                           | 35.65 | 27.05 22.96 30.93       |
| 1982             | 20.6                          | 27.3  | 20.6  | 45.94                                                           | 32.97 | 25.15 21.53 28.17       |
| 1982             | 100.0                         | 0.0   | 100.0 | 127.36                                                          | 74.31 | 44.37 31.49 27.20       |



TABLE II (Continued)  
SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VPT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |       |       |       |       |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|-------|-------|-------|-------|
|                  | PCCN                          | PHCH  | PCCC  | 0F                                                              | 25F   | 50F   | 75F   | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 24.62                                                           | 19.71 | 15.99 | 13.92 | 21.50 |
| 1987             | 0.0                           | 27.3  | 0.0   | 21.10                                                           | 17.40 | 14.57 | 12.99 | 19.48 |
| 1987             | 0.0                           | 100.0 | 0.0   | 11.74                                                           | 11.25 | 10.81 | 10.53 | 14.10 |
| 1987             | 20.6                          | 0.0   | 20.6  | 36.60                                                           | 25.70 | 18.75 | 15.37 | 20.86 |
| 1987             | 20.6                          | 27.3  | 20.6  | 33.04                                                           | 23.39 | 17.33 | 14.45 | 18.83 |
| 1987             | 100.0                         | 0.0   | 100.0 | 82.77                                                           | 48.76 | 29.38 | 20.97 | 18.36 |
| 1990             | 0.0                           | 0.0   | 0.0   | 22.38                                                           | 17.01 | 13.07 | 10.95 | 15.64 |
| 1990             | 0.0                           | 27.3  | 0.0   | 19.07                                                           | 15.01 | 12.00 | 10.37 | 14.39 |
| 1990             | 0.0                           | 100.0 | 0.0   | 10.26                                                           | 9.69  | 9.17  | 8.83  | 11.07 |
| 1990             | 20.6                          | 0.0   | 20.6  | 30.43                                                           | 21.18 | 15.12 | 12.12 | 15.41 |
| 1990             | 20.6                          | 27.3  | 20.6  | 27.17                                                           | 19.18 | 14.05 | 11.54 | 14.17 |
| 1990             | 100.0                         | 0.0   | 100.0 | 61.42                                                           | 37.26 | 23.01 | 16.63 | 14.54 |
| 1995             | 0.0                           | 0.0   | 0.0   | 20.12                                                           | 14.66 | 10.77 | 8.73  | 10.95 |
| 1995             | 0.0                           | 27.3  | 0.0   | 17.13                                                           | 13.01 | 10.03 | 8.45  | 10.41 |
| 1995             | 0.0                           | 100.0 | 0.0   | 9.20                                                            | 8.60  | 8.06  | 7.70  | 8.96  |
| 1995             | 20.6                          | 0.0   | 20.6  | 25.19                                                           | 17.48 | 12.29 | 9.69  | 11.10 |
| 1995             | 20.6                          | 27.3  | 20.6  | 22.20                                                           | 15.83 | 11.55 | 9.41  | 10.56 |
| 1995             | 100.0                         | 0.0   | 100.0 | 44.73                                                           | 28.35 | 18.16 | 13.40 | 11.67 |

TABLE 12  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*HPIH

| CALENDAR YEAR | COLD/HOT START PERCENTAGES |       | TEMPERATURE |        | LOADING |       | AMBIENT |        | TEMPERATURE |       | LOADING |       | AMBIENT |       | TEMPERATURE |       |
|---------------|----------------------------|-------|-------------|--------|---------|-------|---------|--------|-------------|-------|---------|-------|---------|-------|-------------|-------|
|               | PCH                        | PHC   | PCC         | OF     | 50F     | 75F   | 100F    | OF     | 25F         | 50F   | 75F     | 100F  | 25F     | 50F   | 75F         | 100F  |
| 1975          | 0.0                        | 0.0   | 0.0         | 30.88  | 29.55   | 29.24 | 34.62   | 28.86  | 27.85       | 27.37 | 27.10   | 32.46 | 27.85   | 27.37 | 27.10       | 32.46 |
| 1975          | 0.0                        | 27.3  | 0.0         | 27.62  | 27.21   | 27.20 | 32.87   | 25.81  | 25.24       | 25.20 | 25.24   | 32.87 | 25.24   | 25.20 | 25.24       | 32.87 |
| 1975          | 0.0                        | 100.0 | 0.0         | 18.95  | 20.99   | 21.79 | 28.23   | 17.28  | 18.30       | 19.45 | 20.20   | 28.23 | 18.30   | 19.45 | 20.20       | 28.23 |
| 1975          | 20.6                       | 0.0   | 20.6        | 52.94  | 35.00   | 31.69 | 34.00   | 50.47  | 39.62       | 32.80 | 29.56   | 34.00 | 39.62   | 32.80 | 29.56       | 34.00 |
| 1975          | 20.6                       | 27.3  | 20.6        | 49.68  | 32.66   | 29.65 | 32.26   | 47.42  | 37.02       | 30.64 | 27.72   | 32.26 | 37.02   | 30.64 | 27.72       | 32.26 |
| 1975          | 100.0                      | 0.0   | 100.0       | 157.97 | 55.39   | 41.15 | 31.65   | 135.44 | 85.00       | 53.75 | 39.17   | 31.65 | 85.00   | 53.75 | 39.17       | 31.65 |
| 1980          | 0.0                        | 0.0   | 0.0         | 25.20  | 20.16   | 18.03 | 28.07   | 22.99  | 20.05       | 19.12 | 18.12   | 28.07 | 20.05   | 19.12 | 18.12       | 28.07 |
| 1980          | 0.0                        | 27.3  | 0.0         | 21.54  | 18.12   | 17.26 | 25.48   | 19.89  | 18.47       | 17.37 | 16.77   | 25.48 | 18.47   | 17.37 | 16.77       | 25.48 |
| 1980          | 0.0                        | 100.0 | 0.0         | 11.81  | 12.70   | 13.08 | 18.58   | 11.62  | 12.13       | 12.71 | 13.18   | 18.58 | 12.13   | 12.71 | 13.18       | 18.58 |
| 1980          | 20.6                       | 0.0   | 20.6        | 48.50  | 25.47   | 21.44 | 27.20   | 45.26  | 32.28       | 24.38 | 20.74   | 27.20 | 32.28   | 24.38 | 20.74       | 27.20 |
| 1980          | 20.6                       | 27.3  | 20.6        | 44.85  | 23.44   | 19.87 | 24.70   | 42.26  | 29.90       | 22.63 | 19.59   | 24.70 | 29.90   | 22.63 | 19.59       | 24.70 |
| 1980          | 100.0                      | 0.0   | 100.0       | 138.53 | 45.98   | 31.49 | 24.30   | 131.54 | 76.33       | 44.65 | 30.83   | 24.30 | 76.33   | 44.65 | 30.83       | 24.30 |
| 1982          | 0.0                        | 0.0   | 0.0         | 23.62  | 17.54   | 15.77 | 25.64   | 21.02  | 18.27       | 16.05 | 14.76   | 25.64 | 18.27   | 16.05 | 14.76       | 25.64 |
| 1982          | 0.0                        | 27.3  | 0.0         | 19.86  | 15.56   | 14.47 | 22.77   | 17.92  | 15.97       | 14.43 | 13.54   | 22.77 | 15.97   | 14.43 | 13.54       | 22.77 |
| 1982          | 0.0                        | 100.0 | 0.0         | 9.85   | 10.28   | 10.48 | 15.12   | 9.67   | 9.86        | 10.10 | 10.31   | 15.12 | 9.86    | 10.10 | 10.31       | 15.12 |
| 1982          | 20.6                       | 0.0   | 20.6        | 43.99  | 22.06   | 18.18 | 24.63   | 41.64  | 28.57       | 20.72 | 17.10   | 24.63 | 28.57   | 20.72 | 17.10       | 24.63 |
| 1982          | 20.6                       | 27.3  | 20.6        | 40.23  | 20.08   | 16.68 | 21.76   | 38.54  | 26.27       | 19.00 | 15.89   | 21.76 | 26.27   | 19.00 | 15.89       | 21.76 |
| 1982          | 100.0                      | 0.0   | 100.0       | 122.49 | 39.48   | 26.71 | 20.75   | 121.11 | 68.25       | 38.71 | 26.14   | 20.75 | 68.25   | 38.71 | 26.14       | 20.75 |

TABLE 12 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/HOUR)  
SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       | TEMPERATURE |       | ..LOGV.. |       | ..LOGT.. |       | TEMPERATURE | 100F  | 0F    | 25F   | 50F   | 75F   | 100F  |
|------------------|-------------------------------|-------|-------|---------|-------|-------------|-------|----------|-------|----------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                  | PCH                           | PHC   | PCCC  | OF      | 25F   | 50F         | 75F   | 50F      | 75F   | 25F      | 50F   | 75F         |       |       |       |       |       |       |
| 1987             | 0.0                           | 0.0   | 0.0   | 23.13   | 17.84 | 13.88       | 11.72 | 13.88    | 11.72 | 12.65    | 10.43 | 9.15        | 18.75 | 15.48 | 12.65 | 10.43 | 9.15  | 15.77 |
| 1987             | 0.0                           | 27.3  | 0.0   | 19.21   | 15.28 | 12.34       | 10.72 | 12.34    | 10.72 | 10.79    | 9.17  | 8.24        | 16.57 | 12.96 | 10.79 | 9.17  | 8.24  | 15.77 |
| 1987             | 0.0                           | 100.0 | 0.0   | 8.76    | 8.47  | 8.22        | 8.06  | 8.22     | 8.06  | 5.85     | 5.82  | 5.82        | 10.78 | 5.90  | 5.85  | 5.82  | 5.82  | 8.84  |
| 1987             | 20.6                          | 0.0   | 20.6  | 35.91   | 24.24 | 16.84       | 13.28 | 16.84    | 13.28 | 18.67    | 13.12 | 10.51       | 18.06 | 27.74 | 18.67 | 13.12 | 10.51 | 15.04 |
| 1987             | 20.6                          | 27.3  | 20.6  | 31.99   | 21.68 | 15.30       | 12.28 | 15.30    | 12.28 | 16.82    | 11.86 | 9.60        | 15.88 | 25.13 | 16.82 | 11.86 | 9.60  | 13.04 |
| 1987             | 100.0                         | 0.0   | 100.0 | 85.16   | 48.98 | 28.25       | 18.32 | 28.25    | 18.32 | 41.89    | 23.49 | 15.72       | 15.41 | 75.82 | 41.89 | 23.49 | 15.72 | 12.25 |
| 1990             | 0.0                           | 0.0   | 0.0   | 23.50   | 17.25 | 12.73       | 10.32 | 12.73    | 10.32 | 10.29    | 8.09  | 6.86        | 14.91 | 13.21 | 10.29 | 8.09  | 6.86  | 11.43 |
| 1990             | 0.0                           | 27.3  | 0.0   | 19.57   | 14.90 | 11.50       | 9.67  | 11.50    | 9.67  | 8.81     | 7.16  | 6.25        | 13.82 | 10.97 | 8.81  | 7.16  | 6.25  | 10.03 |
| 1990             | 0.0                           | 100.0 | 0.0   | 9.10    | 8.65  | 8.22        | 7.94  | 8.22     | 7.94  | 4.84     | 4.71  | 4.63        | 9.81  | 4.29  | 4.84  | 4.71  | 4.63  | 6.33  |
| 1990             | 20.6                          | 0.0   | 20.6  | 32.49   | 21.94 | 15.84       | 11.65 | 15.84    | 11.65 | 14.49    | 10.04 | 7.91        | 14.68 | 21.58 | 14.49 | 10.04 | 7.91  | 11.03 |
| 1990             | 20.6                          | 27.3  | 20.6  | 28.56   | 19.59 | 13.81       | 11.00 | 13.81    | 11.00 | 13.00    | 9.12  | 7.30        | 13.29 | 19.34 | 13.00 | 9.12  | 7.30  | 9.64  |
| 1990             | 100.0                         | 0.0   | 100.0 | 67.16   | 40.00 | 23.97       | 16.80 | 23.97    | 16.80 | 30.66    | 17.56 | 11.93       | 13.77 | 53.85 | 30.66 | 17.56 | 11.93 | 9.52  |
| 1995             | 0.0                           | 0.0   | 0.0   | 23.56   | 16.69 | 11.84       | 9.31  | 11.84    | 9.31  | 8.18     | 6.83  | 4.88        | 11.68 | 11.15 | 8.18  | 6.83  | 4.88  | 7.15  |
| 1995             | 0.0                           | 27.3  | 0.0   | 19.72   | 14.58 | 10.91       | 8.97  | 10.91    | 8.97  | 7.10     | 5.87  | 4.60        | 11.03 | 9.32  | 7.10  | 5.87  | 4.60  | 6.50  |
| 1995             | 0.0                           | 100.0 | 0.0   | 9.50    | 8.94  | 8.42        | 8.07  | 8.42     | 8.07  | 4.21     | 3.99  | 3.85        | 9.32  | 4.44  | 4.21  | 3.99  | 3.85  | 4.77  |
| 1995             | 20.6                          | 0.0   | 20.6  | 29.67   | 20.11 | 13.70       | 10.50 | 13.70    | 10.50 | 10.83    | 7.38  | 5.70        | 11.87 | 16.13 | 10.83 | 7.38  | 5.70  | 7.17  |
| 1995             | 20.6                          | 27.3  | 20.6  | 25.84   | 18.00 | 12.76       | 10.16 | 12.76    | 10.16 | 9.75     | 6.83  | 5.42        | 11.23 | 14.30 | 9.75  | 6.83  | 5.42  | 6.52  |
| 1995             | 100.0                         | 0.0   | 100.0 | 53.24   | 33.30 | 20.86       | 15.05 | 20.86    | 15.05 | 21.04    | 12.61 | 8.84        | 12.63 | 35.32 | 21.04 | 12.61 | 8.84  | 7.26  |

TABLE 12 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|
|                  | FCH                           | PHC   | PCC   | OF      | 50F  | 75F  | 100F        | OF   | 25F  | 50F     | 75F  | 100F | OF          | 25F  | 50F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.56 | 0.56 | 0.56    | 0.56 | 0.56 | 0.56        | 0.56 | 0.56 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.56 | 0.56 | 0.56    | 0.56 | 0.56 | 0.56        | 0.56 | 0.56 |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.56 | 0.56 | 0.56    | 0.56 | 0.56 | 0.56        | 0.56 | 0.56 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 0.59 | 0.59 | 0.59    | 0.59 | 0.59 | 0.59        | 0.59 | 0.59 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 0.59 | 0.59 | 0.59    | 0.59 | 0.59 | 0.59        | 0.59 | 0.59 |
| 1975             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.59 | 6.59 | 6.59        | 0.71 | 0.71 | 0.71    | 0.71 | 0.71 | 0.71        | 0.71 | 0.71 |
| 1980             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.72 | 0.72 | 0.72    | 0.72 | 0.72 | 0.72        | 0.72 | 0.72 |
| 1980             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.73 | 0.73 | 0.73    | 0.73 | 0.73 | 0.73        | 0.73 | 0.73 |
| 1980             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.75 | 0.75 | 0.75    | 0.75 | 0.75 | 0.75        | 0.75 | 0.75 |
| 1980             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 0.76 | 0.76 | 0.76    | 0.76 | 0.76 | 0.76        | 0.76 | 0.76 |
| 1980             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 0.77 | 0.77 | 0.77    | 0.77 | 0.77 | 0.77        | 0.77 | 0.77 |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.59 | 6.59 | 6.59        | 0.92 | 0.92 | 0.92    | 0.92 | 0.92 | 0.92        | 0.92 | 0.92 |
| 1982             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.67 | 0.67 | 0.67    | 0.67 | 0.67 | 0.67        | 0.67 | 0.67 |
| 1982             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.68 | 0.68 | 0.68    | 0.68 | 0.68 | 0.68        | 0.68 | 0.68 |
| 1982             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 0.71 | 0.71 | 0.71    | 0.71 | 0.71 | 0.71        | 0.71 | 0.71 |
| 1982             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 0.71 | 0.71 | 0.71    | 0.71 | 0.71 | 0.71        | 0.71 | 0.71 |
| 1982             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 0.72 | 0.72 | 0.72    | 0.72 | 0.72 | 0.72        | 0.72 | 0.72 |
| 1982             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.59 | 6.59 | 6.59        | 0.87 | 0.87 | 0.87    | 0.87 | 0.87 | 0.87        | 0.87 | 0.87 |

TABLE 12 (Continued)  
SENSITIVITY OF THE MONITOR EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |      |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|------|------|------|
|                  | PRCH                          | PCIC  | PCCC  | 0F      | 25F  | 50F  | 75F         | 100F | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.67 | 0.67    | 0.67 | 0.67 | 0.67        | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| 1987             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.68 | 0.68    | 0.68 | 0.68 | 0.68        | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| 1987             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.71 | 0.71    | 0.71 | 0.71 | 0.71        | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| 1987             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.71 | 0.71    | 0.71 | 0.71 | 0.71        | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| 1987             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.72 | 0.72    | 0.72 | 0.72 | 0.72        | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| 1987             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.87 | 0.87    | 0.87 | 0.87 | 0.87        | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| 1990             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.68 | 0.68    | 0.68 | 0.68 | 0.68        | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.69 | 0.69    | 0.69 | 0.69 | 0.69        | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| 1990             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.73 | 0.73    | 0.73 | 0.73 | 0.73        | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.72 | 0.72    | 0.72 | 0.72 | 0.72        | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.73 | 0.73    | 0.73 | 0.73 | 0.73        | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| 1990             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.89 | 0.89    | 0.89 | 0.89 | 0.89        | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| 1995             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.70 | 0.70    | 0.70 | 0.70 | 0.70        | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| 1995             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.72 | 0.72    | 0.72 | 0.72 | 0.72        | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| 1995             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.75 | 0.75    | 0.75 | 0.75 | 0.75        | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 1995             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.75 | 0.75    | 0.75 | 0.75 | 0.75        | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| 1995             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.76 | 0.76    | 0.76 | 0.76 | 0.76        | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| 1995             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.59 | 6.59 | 6.59        | 6.59 | 0.92 | 0.92    | 0.92 | 0.92 | 0.92        | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |

TABLE 12 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HGV** |        |        | **LDDT** |        |      | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|---------|--------|--------|----------|--------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCN                          | PHNC  | PCCC  | 0F      | 25F    | 50F    | 75F      | 100F   | 0F   | 25F                | 50F  | 75F  | 100F           | 0F   | 25F                | 50F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 183.79  | 167.80 | 153.32 | 144.02   | 180.20 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 183.79  | 167.80 | 153.32 | 144.02   | 180.20 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 183.79  | 167.80 | 153.32 | 144.02   | 180.20 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 183.79  | 167.80 | 153.32 | 144.02   | 180.20 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 183.79  | 167.80 | 153.32 | 144.02   | 180.20 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 183.79  | 167.80 | 153.32 | 144.02   | 180.20 | 0.0  | 0.0                | 0.0  | 0.0  | 0.0            | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 176.86  | 161.01 | 146.70 | 137.52   | 183.49 | 0.97 | 0.97               | 0.97 | 0.97 | 0.97           | 0.97 | 0.97               | 0.97 |
| 1980             | 0.0                           | 27.3  | 0.0   | 176.86  | 161.01 | 146.70 | 137.52   | 183.49 | 0.98 | 0.98               | 0.98 | 0.98 | 0.98           | 0.98 | 0.98               | 0.98 |
| 1980             | 0.0                           | 100.0 | 0.0   | 176.86  | 161.01 | 146.70 | 137.52   | 183.49 | 1.01 | 1.01               | 1.01 | 1.01 | 1.01           | 1.01 | 1.01               | 1.01 |
| 1980             | 20.6                          | 0.0   | 20.6  | 176.86  | 161.01 | 146.70 | 137.52   | 183.49 | 1.02 | 1.02               | 1.02 | 1.02 | 1.02           | 1.02 | 1.02               | 1.02 |
| 1980             | 20.6                          | 27.3  | 20.6  | 176.86  | 161.01 | 146.70 | 137.52   | 183.49 | 1.04 | 1.04               | 1.04 | 1.04 | 1.04           | 1.04 | 1.04               | 1.04 |
| 1980             | 100.0                         | 0.0   | 100.0 | 176.86  | 161.01 | 146.70 | 137.52   | 183.49 | 1.24 | 1.24               | 1.24 | 1.24 | 1.24           | 1.24 | 1.24               | 1.24 |
| 1982             | 0.0                           | 0.0   | 0.0   | 160.94  | 148.31 | 136.84 | 129.45   | 173.72 | 0.99 | 0.99               | 0.99 | 0.99 | 0.99           | 0.99 | 0.99               | 0.99 |
| 1982             | 0.0                           | 27.3  | 0.0   | 160.94  | 148.31 | 136.84 | 129.45   | 173.72 | 1.00 | 1.00               | 1.00 | 1.00 | 1.00           | 1.00 | 1.00               | 1.00 |
| 1982             | 0.0                           | 100.0 | 0.0   | 160.94  | 148.31 | 136.84 | 129.45   | 173.72 | 1.04 | 1.04               | 1.04 | 1.04 | 1.04           | 1.04 | 1.04               | 1.04 |
| 1982             | 20.6                          | 0.0   | 20.6  | 160.94  | 148.31 | 136.84 | 129.45   | 173.72 | 1.05 | 1.05               | 1.05 | 1.05 | 1.05           | 1.05 | 1.05               | 1.05 |
| 1982             | 20.6                          | 27.3  | 20.6  | 160.94  | 148.31 | 136.84 | 129.45   | 173.72 | 1.06 | 1.06               | 1.06 | 1.06 | 1.06           | 1.06 | 1.06               | 1.06 |
| 1982             | 100.0                         | 0.0   | 100.0 | 160.94  | 148.31 | 136.84 | 129.45   | 173.72 | 1.28 | 1.28               | 1.28 | 1.28 | 1.28           | 1.28 | 1.28               | 1.28 |



TABLE 12 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>25F | HMOV... |       |        | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | ...LONT... |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|----------------|---------|-------|--------|--------------------|------|------|----------------|------------|------|--------------------|------|
|                  | PCCH                          | PCHC  | PCCC  |                | 50F     | 75F   | 100F   |                    |      |      |                | 50F        | 100F |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 93.89          | 81.29   | 77.45 | 103.98 | 1.05               | 1.05 | 1.05 | 1.05           | 1.05       | 1.05 | 1.05               | 1.05 |
| 1987             | 0.0                           | 27.3  | 0.0   | 93.89          | 81.29   | 77.45 | 103.98 | 1.07               | 1.07 | 1.07 | 1.07           | 1.07       | 1.07 | 1.07               | 1.07 |
| 1987             | 0.0                           | 100.0 | 0.0   | 93.89          | 81.29   | 77.45 | 103.98 | 1.12               | 1.12 | 1.12 | 1.12           | 1.12       | 1.12 | 1.12               | 1.12 |
| 1987             | 20.6                          | 0.0   | 20.6  | 93.89          | 81.29   | 77.45 | 103.98 | 1.12               | 1.12 | 1.12 | 1.12           | 1.12       | 1.12 | 1.12               | 1.12 |
| 1987             | 20.6                          | 27.3  | 20.6  | 93.89          | 81.29   | 77.45 | 103.98 | 1.14               | 1.14 | 1.14 | 1.14           | 1.14       | 1.14 | 1.14               | 1.14 |
| 1987             | 100.0                         | 0.0   | 100.0 | 93.89          | 81.29   | 77.45 | 103.98 | 1.37               | 1.37 | 1.37 | 1.37           | 1.37       | 1.37 | 1.37               | 1.37 |
| 1990             | 0.0                           | 0.0   | 0.0   | 60.32          | 50.35   | 47.40 | 62.01  | 1.08               | 1.08 | 1.08 | 1.08           | 1.08       | 1.08 | 1.08               | 1.08 |
| 1990             | 0.0                           | 27.3  | 0.0   | 60.32          | 50.35   | 47.40 | 62.01  | 1.09               | 1.09 | 1.09 | 1.09           | 1.09       | 1.09 | 1.09               | 1.09 |
| 1990             | 0.0                           | 100.0 | 0.0   | 60.32          | 50.35   | 47.40 | 62.01  | 1.15               | 1.15 | 1.15 | 1.15           | 1.15       | 1.15 | 1.15               | 1.15 |
| 1990             | 20.6                          | 0.0   | 20.6  | 60.32          | 50.35   | 47.40 | 62.01  | 1.14               | 1.14 | 1.14 | 1.14           | 1.14       | 1.14 | 1.14               | 1.14 |
| 1990             | 20.6                          | 27.3  | 20.6  | 60.32          | 50.35   | 47.40 | 62.01  | 1.16               | 1.16 | 1.16 | 1.16           | 1.16       | 1.16 | 1.16               | 1.16 |
| 1990             | 100.0                         | 0.0   | 100.0 | 60.32          | 50.35   | 47.40 | 62.01  | 1.40               | 1.40 | 1.40 | 1.40           | 1.40       | 1.40 | 1.40               | 1.40 |
| 1995             | 0.0                           | 0.0   | 0.0   | 38.59          | 30.51   | 28.18 | 34.04  | 1.12               | 1.12 | 1.12 | 1.12           | 1.12       | 1.12 | 1.12               | 1.12 |
| 1995             | 0.0                           | 27.3  | 0.0   | 38.59          | 30.51   | 28.18 | 34.04  | 1.14               | 1.14 | 1.14 | 1.14           | 1.14       | 1.14 | 1.14               | 1.14 |
| 1995             | 0.0                           | 100.0 | 0.0   | 38.59          | 30.51   | 28.18 | 34.04  | 1.20               | 1.20 | 1.20 | 1.20           | 1.20       | 1.20 | 1.20               | 1.20 |
| 1995             | 20.6                          | 0.0   | 20.6  | 38.59          | 30.51   | 28.18 | 34.04  | 1.19               | 1.19 | 1.19 | 1.19           | 1.19       | 1.19 | 1.19               | 1.19 |
| 1995             | 20.6                          | 27.3  | 20.6  | 38.59          | 30.51   | 28.18 | 34.04  | 1.21               | 1.21 | 1.21 | 1.21           | 1.21       | 1.21 | 1.21               | 1.21 |
| 1995             | 100.0                         | 0.0   | 100.0 | 38.59          | 30.51   | 28.18 | 34.04  | 1.46               | 1.46 | 1.46 | 1.46           | 1.46       | 1.46 | 1.46               | 1.46 |

TABLE 12 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 CO EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE<br>TYPES COMBINED |                |       |       |       |
|------------------|-------------------------------|-------|-------|--------------------------------------------------------------------|----------------|-------|-------|-------|
|                  | PCCN                          | PHC   | PCCC  | OF                                                                 | AMBIENT<br>25F | 50F   | 75F   | 100F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 36.06                                                              | 34.72          | 33.60 | 32.93 | 39.39 |
| 1975             | 0.0                           | 27.3  | 0.0   | 33.09                                                              | 32.18          | 31.47 | 31.08 | 37.80 |
| 1975             | 0.0                           | 100.0 | 0.0   | 25.19                                                              | 25.42          | 25.80 | 26.16 | 33.58 |
| 1975             | 20.6                          | 0.0   | 20.6  | 56.33                                                              | 45.59          | 38.61 | 35.19 | 38.84 |
| 1975             | 20.6                          | 27.3  | 20.6  | 53.36                                                              | 43.06          | 36.48 | 33.34 | 37.25 |
| 1975             | 100.0                         | 0.0   | 100.0 | 134.47                                                             | 87.50          | 57.91 | 43.89 | 36.71 |
| 1980             | 0.0                           | 0.0   | 0.0   | 30.41                                                              | 27.30          | 24.71 | 23.16 | 33.39 |
| 1980             | 0.0                           | 27.3  | 0.0   | 27.14                                                              | 24.81          | 22.88 | 21.75 | 31.08 |
| 1980             | 0.0                           | 100.0 | 0.0   | 18.46                                                              | 18.18          | 18.03 | 18.00 | 24.93 |
| 1980             | 20.6                          | 0.0   | 20.6  | 51.57                                                              | 37.99          | 29.56 | 25.54 | 32.71 |
| 1980             | 20.6                          | 27.3  | 20.6  | 48.31                                                              | 35.50          | 27.74 | 24.13 | 30.41 |
| 1980             | 100.0                         | 0.0   | 100.0 | 133.15                                                             | 79.22          | 48.26 | 34.73 | 30.12 |
| 1982             | 0.0                           | 0.0   | 0.0   | 28.03                                                              | 24.54          | 21.67 | 19.98 | 30.44 |
| 1982             | 0.0                           | 27.3  | 0.0   | 24.72                                                              | 22.08          | 19.93 | 18.66 | 27.91 |
| 1982             | 0.0                           | 100.0 | 0.0   | 15.89                                                              | 15.53          | 15.27 | 15.15 | 21.19 |
| 1982             | 20.6                          | 0.0   | 20.6  | 46.49                                                              | 33.71          | 25.78 | 22.00 | 29.57 |
| 1982             | 20.6                          | 27.3  | 20.6  | 43.17                                                              | 31.25          | 24.03 | 20.68 | 27.05 |
| 1982             | 100.0                         | 0.0   | 100.0 | 117.62                                                             | 69.06          | 41.62 | 29.78 | 26.24 |



TABLE 12 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
CO EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF    | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |       |       |       |
|------------------|-------------------------------|-------|-------|-------|-----------------------------------------------------------------|-------|-------|-------|
|                  | PCCN                          | PCHC  | PCCC  |       | AMBIENT<br>25F                                                  | 50F   | 75F   | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 23.07 | 18.57                                                           | 15.15 | 13.24 | 20.32 |
| 1987             | 0.0                           | 27.3  | 0.0   | 19.87 | 16.47                                                           | 13.86 | 12.40 | 18.48 |
| 1987             | 0.0                           | 100.0 | 0.0   | 11.36 | 10.87                                                           | 10.43 | 10.15 | 13.59 |
| 1987             | 20.6                          | 0.0   | 20.6  | 33.96 | 24.01                                                           | 17.66 | 14.56 | 19.73 |
| 1987             | 20.6                          | 27.3  | 20.6  | 30.76 | 21.91                                                           | 16.37 | 13.72 | 17.90 |
| 1987             | 100.0                         | 0.0   | 100.0 | 75.94 | 44.99                                                           | 27.32 | 19.65 | 17.46 |
| 1990             | 0.0                           | 0.0   | 0.0   | 20.77 | 15.86                                                           | 12.25 | 10.31 | 14.67 |
| 1990             | 0.0                           | 27.3  | 0.0   | 17.77 | 14.04                                                           | 11.29 | 9.78  | 13.54 |
| 1990             | 0.0                           | 100.0 | 0.0   | 9.77  | 9.22                                                            | 8.71  | 8.38  | 10.52 |
| 1990             | 20.6                          | 0.0   | 20.6  | 28.07 | 19.64                                                           | 14.11 | 11.37 | 14.46 |
| 1990             | 20.6                          | 27.3  | 20.6  | 25.07 | 17.83                                                           | 13.14 | 10.85 | 13.33 |
| 1990             | 100.0                         | 0.0   | 100.0 | 56.20 | 34.23                                                           | 21.27 | 15.47 | 13.67 |
| 1995             | 0.0                           | 0.0   | 0.0   | 18.56 | 13.58                                                           | 10.03 | 8.16  | 10.22 |
| 1995             | 0.0                           | 27.3  | 0.0   | 15.85 | 12.08                                                           | 9.36  | 7.90  | 9.72  |
| 1995             | 0.0                           | 100.0 | 0.0   | 8.66  | 8.09                                                            | 7.57  | 7.23  | 9.41  |
| 1995             | 20.6                          | 0.0   | 20.6  | 23.16 | 16.14                                                           | 11.41 | 9.03  | 10.35 |
| 1995             | 20.6                          | 27.3  | 20.6  | 20.45 | 14.64                                                           | 10.74 | 8.78  | 9.86  |
| 1995             | 100.0                         | 0.0   | 100.0 | 40.88 | 26.00                                                           | 16.73 | 12.40 | 10.87 |

TABLE 13  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | 0F   | AMBIENT<br>25F | **LDGV** |      | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | **LDGT** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|------|----------------|----------|------|--------------------|------|------|----------------|----------|------|--------------------|------|
|                  | PCH                           | PHC   | PCCC  |      |                | 50F      | 75F  |                    |      |      |                | 50F      | 75F  |                    |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 4.51 | 3.83           | 3.27     | 2.93 | 2.58               | 2.97 | 4.28 | 3.69           | 3.34     | 2.93 | 2.58               | 100F |
| 1975             | 0.0                           | 27.3  | 0.0   | 5.19 | 4.44           | 3.80     | 3.41 | 2.98               | 5.74 | 4.96 | 4.30           | 3.89     | 3.34 | 2.93               | 2.93 |
| 1975             | 0.0                           | 100.0 | 0.0   | 7.02 | 6.04           | 5.21     | 4.71 | 4.03               | 7.80 | 6.78 | 5.91           | 5.37     | 4.87 | 4.38               | 4.87 |
| 1975             | 20.6                          | 0.0   | 20.6  | 4.49 | 3.96           | 3.52     | 3.26 | 2.96               | 4.96 | 4.43 | 3.98           | 3.71     | 3.34 | 2.93               | 3.34 |
| 1975             | 20.6                          | 27.3  | 20.6  | 5.17 | 4.56           | 4.05     | 3.74 | 3.35               | 5.74 | 5.11 | 4.59           | 4.27     | 3.79 | 3.34               | 3.79 |
| 1975             | 100.0                         | 0.0   | 100.0 | 4.41 | 4.45           | 4.49     | 4.52 | 4.33               | 4.94 | 5.02 | 5.10           | 5.17     | 4.91 | 4.31               | 4.91 |
| 1980             | 0.0                           | 0.0   | 0.0   | 2.76 | 2.42           | 2.13     | 1.95 | 1.67               | 3.00 | 2.67 | 2.39           | 2.22     | 1.91 | 1.67               | 1.91 |
| 1980             | 0.0                           | 27.3  | 0.0   | 3.20 | 2.82           | 2.50     | 2.30 | 1.95               | 3.47 | 3.11 | 2.80           | 2.61     | 2.22 | 1.91               | 2.22 |
| 1980             | 0.0                           | 100.0 | 0.0   | 4.36 | 3.91           | 3.48     | 3.22 | 2.70               | 4.71 | 4.27 | 3.89           | 3.64     | 3.04 | 2.70               | 3.04 |
| 1980             | 20.6                          | 0.0   | 20.6  | 2.93 | 2.62           | 2.36     | 2.21 | 1.90               | 3.18 | 2.90 | 2.67           | 2.52     | 2.18 | 1.90               | 2.18 |
| 1980             | 20.6                          | 27.3  | 20.6  | 3.37 | 3.03           | 2.73     | 2.55 | 2.19               | 3.65 | 3.34 | 3.07           | 2.91     | 2.49 | 2.19               | 2.49 |
| 1980             | 100.0                         | 0.0   | 100.0 | 3.59 | 3.41           | 3.28     | 3.20 | 2.80               | 3.88 | 3.79 | 3.72           | 3.71     | 3.20 | 2.80               | 3.20 |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.24 | 1.97           | 1.74     | 1.60 | 1.33               | 2.63 | 2.31 | 2.04           | 1.88     | 1.58 | 1.33               | 1.58 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.60 | 2.30           | 2.05     | 1.89 | 1.56               | 3.02 | 2.68 | 2.38           | 2.20     | 1.84 | 1.56               | 1.84 |
| 1982             | 0.0                           | 100.0 | 0.0   | 3.56 | 3.19           | 2.86     | 2.66 | 2.17               | 4.05 | 3.64 | 3.29           | 3.07     | 2.52 | 2.17               | 2.52 |
| 1982             | 20.6                          | 0.0   | 20.6  | 2.44 | 2.18           | 1.96     | 1.83 | 1.52               | 2.88 | 2.57 | 2.30           | 2.14     | 1.80 | 1.52               | 1.80 |
| 1982             | 20.6                          | 27.3  | 20.6  | 2.88 | 2.51           | 2.27     | 2.12 | 1.74               | 3.27 | 2.93 | 2.64           | 2.47     | 2.06 | 1.74               | 2.06 |
| 1982             | 100.0                         | 0.0   | 100.0 | 3.21 | 2.98           | 2.80     | 2.70 | 2.22               | 3.86 | 3.55 | 3.31           | 3.17     | 2.63 | 2.22               | 2.63 |

TABLE 13 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **LDGV** |                |      | **LDGT** |      |      | TEMPERATURE<br>7°F | 100F |                |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|----------|------|------|--------------------|------|----------------|------|
|                  | PCCM                          | PCMC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | 75F      | 100F | 0F   |                    |      | AMBIENT<br>25F | 50F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 1.42     | 1.30           | 1.21 | 1.15     | 0.83 | 1.62 | 1.43               | 1.27 | 1.18           | 0.92 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.72     | 1.57           | 1.45 | 1.37     | 1.00 | 1.88 | 1.67               | 1.49 | 1.38           | 1.08 |
| 1987             | 0.0                           | 100.0 | 0.0   | 2.52     | 2.30           | 2.10 | 1.97     | 1.46 | 2.55 | 2.29               | 2.07 | 1.92           | 1.50 |
| 1987             | 20.6                          | 0.0   | 20.6  | 1.61     | 1.48           | 1.38 | 1.33     | 0.95 | 1.83 | 1.63               | 1.46 | 1.35           | 1.05 |
| 1987             | 20.6                          | 27.3  | 20.6  | 1.90     | 1.76           | 1.63 | 1.55     | 1.12 | 2.08 | 1.86               | 1.67 | 1.56           | 1.21 |
| 1987             | 100.0                         | 0.0   | 100.0 | 2.32     | 2.18           | 2.08 | 2.02     | 1.42 | 2.63 | 2.37               | 2.16 | 2.04           | 1.53 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.18     | 1.13           | 1.09 | 1.06     | 0.71 | 1.12 | 1.02               | 0.93 | 0.88           | 0.65 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.50     | 1.42           | 1.34 | 1.29     | 0.88 | 1.33 | 1.21               | 1.11 | 1.05           | 0.78 |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.35     | 2.18           | 2.01 | 1.91     | 1.34 | 1.90 | 1.73               | 1.58 | 1.49           | 1.11 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.35     | 1.30           | 1.26 | 1.23     | 0.82 | 1.27 | 1.17               | 1.08 | 1.03           | 0.75 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.67     | 1.58           | 1.51 | 1.47     | 1.00 | 1.49 | 1.36               | 1.26 | 1.19           | 0.87 |
| 1990             | 100.0                         | 0.0   | 100.0 | 1.98     | 1.93           | 1.91 | 1.90     | 1.25 | 1.88 | 1.75               | 1.65 | 1.59           | 1.12 |
| 1995             | 0.0                           | 0.0   | 0.0   | 0.98     | 0.99           | 1.00 | 1.00     | 0.63 | 0.75 | 0.71               | 0.69 | 0.67           | 0.45 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.33     | 1.29           | 1.26 | 1.24     | 0.81 | 0.94 | 0.89               | 0.84 | 0.81           | 0.55 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.24     | 2.10           | 1.97 | 1.89     | 1.29 | 1.46 | 1.35               | 1.25 | 1.19           | 0.83 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.13     | 1.14           | 1.16 | 1.17     | 0.74 | 0.87 | 0.83               | 0.81 | 0.80           | 0.53 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.47     | 1.45           | 1.43 | 1.42     | 0.92 | 1.06 | 1.01               | 0.96 | 0.94           | 0.63 |
| 1995             | 100.0                         | 0.0   | 100.0 | 1.69     | 1.74           | 1.90 | 1.84     | 1.17 | 1.32 | 1.30               | 1.28 | 1.27           | 0.83 |

TABLE 13 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      |      |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|------|---------|------|------|-------------|------|------|------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F      | 25F   | 50F   | 75F         | 100F  | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F  | 75F  |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.72 | 2.72    | 2.72 | 2.72 | 2.72        | 2.72 | 2.72 | 2.72 | 2.72 | 100F |
| 1975             | 0.0                           | 27.3  | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.72 | 2.72    | 2.72 | 2.72 | 2.72        | 2.72 | 2.72 | 2.72 | 2.72 | 2.72 |
| 1975             | 0.0                           | 100.0 | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.73 | 2.73    | 2.73 | 2.73 | 2.73        | 2.73 | 2.73 | 2.73 | 2.73 | 2.72 |
| 1975             | 20.6                          | 0.0   | 20.6  | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.77 | 2.77    | 2.77 | 2.77 | 2.77        | 2.77 | 2.77 | 2.77 | 2.77 | 2.73 |
| 1975             | 20.6                          | 27.3  | 20.6  | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.77 | 2.77    | 2.77 | 2.77 | 2.77        | 2.77 | 2.77 | 2.77 | 2.77 | 2.77 |
| 1975             | 100.0                         | 0.0   | 100.0 | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.96 | 2.96    | 2.96 | 2.96 | 2.96        | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 |
| 1980             | 0.0                           | 0.0   | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.45 | 2.45    | 2.45 | 2.45 | 2.45        | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 |
| 1980             | 0.0                           | 27.3  | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.45 | 2.45    | 2.45 | 2.45 | 2.45        | 2.45 | 2.45 | 2.45 | 2.45 | 2.45 |
| 1980             | 0.0                           | 100.0 | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.44 | 2.44    | 2.44 | 2.44 | 2.44        | 2.44 | 2.44 | 2.44 | 2.44 | 2.44 |
| 1980             | 20.6                          | 0.0   | 20.6  | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.49 | 2.49    | 2.49 | 2.49 | 2.49        | 2.49 | 2.49 | 2.49 | 2.49 | 2.44 |
| 1980             | 20.6                          | 27.3  | 20.6  | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.49 | 2.49    | 2.49 | 2.49 | 2.49        | 2.49 | 2.49 | 2.49 | 2.49 | 2.49 |
| 1980             | 100.0                         | 0.0   | 100.0 | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.64 | 2.64    | 2.64 | 2.64 | 2.64        | 2.64 | 2.64 | 2.64 | 2.64 | 2.49 |
| 1982             | 0.0                           | 0.0   | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.20 | 2.20    | 2.20 | 2.20 | 2.20        | 2.20 | 2.20 | 2.20 | 2.20 | 2.64 |
| 1982             | 0.0                           | 27.3  | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.20 | 2.20    | 2.20 | 2.20 | 2.20        | 2.20 | 2.20 | 2.20 | 2.20 | 2.20 |
| 1982             | 0.0                           | 100.0 | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.19 | 2.19    | 2.19 | 2.19 | 2.19        | 2.19 | 2.19 | 2.19 | 2.19 | 2.20 |
| 1982             | 20.6                          | 0.0   | 20.6  | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.24 | 2.24    | 2.24 | 2.24 | 2.24        | 2.24 | 2.24 | 2.24 | 2.24 | 2.19 |
| 1982             | 20.6                          | 27.3  | 20.6  | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.23 | 2.23    | 2.23 | 2.23 | 2.23        | 2.23 | 2.23 | 2.23 | 2.23 | 2.24 |
| 1982             | 100.0                         | 0.0   | 100.0 | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.37 | 2.37    | 2.37 | 2.37 | 2.37        | 2.37 | 2.37 | 2.37 | 2.37 | 2.23 |
| 1982             | 0.0                           | 0.0   | 0.0   | 40.29   | 40.29 | 40.29 | 40.29       | 40.29 | 2.37 | 2.37    | 2.37 | 2.37 | 2.37        | 2.37 | 2.37 | 2.37 | 2.37 | 2.37 |

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV**       |       |       |       | **LDDV**       |      |      |      |
|------------------|-------------------------------|-------|-------|----------------|-------|-------|-------|----------------|------|------|------|
|                  | PCCH                          | PCNC  | PCCC  | AMBIENT<br>25F | 0F    | 75F   | 100F  | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 29.63          | 29.63 | 29.63 | 29.63 | 1.65           | 1.65 | 1.65 | 1.65 |
| 1987             | 0.0                           | 27.3  | 0.0   | 29.63          | 29.63 | 29.63 | 29.63 | 1.65           | 1.65 | 1.65 | 1.65 |
| 1987             | 0.0                           | 100.0 | 0.0   | 29.63          | 29.63 | 29.63 | 29.63 | 1.64           | 1.64 | 1.64 | 1.64 |
| 1987             | 20.6                          | 0.0   | 20.6  | 29.63          | 29.63 | 29.63 | 29.63 | 1.68           | 1.68 | 1.68 | 1.68 |
| 1987             | 20.6                          | 27.3  | 20.6  | 29.63          | 29.63 | 29.63 | 29.63 | 1.67           | 1.67 | 1.67 | 1.67 |
| 1987             | 100.0                         | 0.0   | 100.0 | 29.63          | 29.63 | 29.63 | 29.63 | 1.76           | 1.76 | 1.76 | 1.76 |
| 1990             | 0.0                           | 0.0   | 0.0   | 20.34          | 20.34 | 20.34 | 20.34 | 1.57           | 1.57 | 1.57 | 1.57 |
| 1990             | 0.0                           | 27.3  | 0.0   | 20.34          | 20.34 | 20.34 | 20.34 | 1.57           | 1.57 | 1.57 | 1.57 |
| 1990             | 0.0                           | 100.0 | 0.0   | 20.34          | 20.34 | 20.34 | 20.34 | 1.55           | 1.55 | 1.55 | 1.55 |
| 1990             | 20.6                          | 0.0   | 20.6  | 20.34          | 20.34 | 20.34 | 20.34 | 1.59           | 1.59 | 1.59 | 1.59 |
| 1990             | 20.6                          | 27.3  | 20.6  | 20.34          | 20.34 | 20.34 | 20.34 | 1.59           | 1.59 | 1.59 | 1.59 |
| 1990             | 100.0                         | 0.0   | 100.0 | 20.34          | 20.34 | 20.34 | 20.34 | 1.67           | 1.67 | 1.67 | 1.67 |
| 1995             | 0.0                           | 0.0   | 0.0   | 13.54          | 13.54 | 13.54 | 13.54 | 1.60           | 1.60 | 1.60 | 1.60 |
| 1995             | 0.0                           | 27.3  | 0.0   | 13.54          | 13.54 | 13.54 | 13.54 | 1.59           | 1.59 | 1.59 | 1.59 |
| 1995             | 0.0                           | 100.0 | 0.0   | 13.54          | 13.54 | 13.54 | 13.54 | 1.58           | 1.58 | 1.58 | 1.58 |
| 1995             | 20.6                          | 0.0   | 20.6  | 13.54          | 13.54 | 13.54 | 13.54 | 1.62           | 1.62 | 1.62 | 1.62 |
| 1995             | 20.6                          | 27.3  | 20.6  | 13.54          | 13.54 | 13.54 | 13.54 | 1.61           | 1.61 | 1.61 | 1.61 |
| 1995             | 100.0                         | 0.0   | 100.0 | 13.54          | 13.54 | 13.54 | 13.54 | 1.70           | 1.70 | 1.70 | 1.70 |

TABLE 13 (Cont Inued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | AMBIENT |      |      | TEMPERATURE |      |      | TEMPERATURE |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|---------|------|------|-------------|------|------|-------------|------|------|-------------|------|------|
|                  | PCCH                          | CHHC  | PCCC  | 25F     | 50F  | 75F  | 0F      | 100F | 75F  | 50F         | 25F  | 0F   | 75F         | 50F  | 25F  | 0F          | 75F  | 50F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 11.01   | 9.69 | 8.68 | 12.53   | 7.72 | 8.68 | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 11.01   | 9.69 | 8.68 | 12.53   | 7.72 | 8.68 | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 11.01   | 9.69 | 8.68 | 12.53   | 7.72 | 8.68 | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 11.01   | 9.69 | 8.68 | 12.53   | 7.72 | 8.68 | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 11.01   | 9.69 | 8.68 | 12.53   | 7.72 | 8.68 | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 11.01   | 9.69 | 8.68 | 12.53   | 7.72 | 8.68 | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  | 0.0         | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 9.63    | 9.05 | 8.68 | 10.27   | 7.24 | 8.68 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 |
| 1980             | 0.0                           | 27.3  | 0.0   | 9.63    | 9.05 | 8.68 | 10.27   | 7.24 | 8.68 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 |
| 1980             | 0.0                           | 100.0 | 0.0   | 9.63    | 9.05 | 8.68 | 10.27   | 7.24 | 8.68 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 |
| 1980             | 20.6                          | 0.0   | 20.6  | 9.63    | 9.05 | 8.68 | 10.27   | 7.24 | 8.68 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 |
| 1980             | 20.6                          | 27.3  | 20.6  | 9.63    | 9.05 | 8.68 | 10.27   | 7.24 | 8.68 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 |
| 1980             | 100.0                         | 0.0   | 100.0 | 9.63    | 9.05 | 8.68 | 10.27   | 7.24 | 8.68 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 | 2.87        | 2.87 | 2.87 |
| 1982             | 0.0                           | 0.0   | 0.0   | 9.38    | 8.96 | 8.70 | 9.83    | 7.44 | 8.70 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 |
| 1982             | 0.0                           | 27.3  | 0.0   | 9.38    | 8.96 | 8.70 | 9.83    | 7.44 | 8.70 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 |
| 1982             | 0.0                           | 100.0 | 0.0   | 9.38    | 8.96 | 8.70 | 9.83    | 7.44 | 8.70 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 |
| 1982             | 20.6                          | 0.0   | 20.6  | 9.38    | 8.96 | 8.70 | 9.83    | 7.44 | 8.70 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 |
| 1982             | 20.6                          | 27.3  | 20.6  | 9.38    | 8.96 | 8.70 | 9.83    | 7.44 | 8.70 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 |
| 1982             | 100.0                         | 0.0   | 100.0 | 9.38    | 8.96 | 8.70 | 9.83    | 7.44 | 8.70 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 | 3.07        | 3.07 | 3.07 |



TABLE 13 (Continued)  
SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
MOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | MOX  |      |      | TEMPERATURE |      |      | MOX  |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|------|------|------|-------------|------|------|------|------|------|
|                  | PCCH                          | PCHC  | PECC  | OF      | 25F  | 50F  | 75F         | 100F | OF   | 25F  | 50F  | 75F  | 100F        | OF   | 25F  | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 8.03    | 7.57 | 7.17 | 6.91        | 5.72 | 2.31 | 2.31 | 2.31 | 2.31 | 2.31        | 2.31 | 2.31 | 2.31 | 2.31 | 2.31 |
| 1987             | 0.0                           | 27.3  | 0.0   | 8.03    | 7.57 | 7.17 | 6.91        | 5.72 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30        | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| 1987             | 0.0                           | 100.0 | 0.0   | 8.03    | 7.57 | 7.17 | 6.91        | 5.72 | 2.28 | 2.28 | 2.28 | 2.28 | 2.28        | 2.28 | 2.28 | 2.28 | 2.28 | 2.28 |
| 1987             | 20.6                          | 0.0   | 20.6  | 8.03    | 7.57 | 7.17 | 6.91        | 5.72 | 2.34 | 2.34 | 2.34 | 2.34 | 2.34        | 2.34 | 2.34 | 2.34 | 2.34 | 2.34 |
| 1987             | 20.6                          | 27.3  | 20.6  | 8.03    | 7.57 | 7.17 | 6.91        | 5.72 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33        | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 |
| 1987             | 100.0                         | 0.0   | 100.0 | 8.03    | 7.57 | 7.17 | 6.91        | 5.72 | 2.46 | 2.46 | 2.46 | 2.46 | 2.46        | 2.46 | 2.46 | 2.46 | 2.46 | 2.46 |
| 1990             | 0.0                           | 0.0   | 0.0   | 6.12    | 5.74 | 5.40 | 5.18        | 4.01 | 1.78 | 1.78 | 1.78 | 1.78 | 1.78        | 1.78 | 1.78 | 1.78 | 1.78 | 1.78 |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.12    | 5.74 | 5.40 | 5.18        | 4.01 | 1.78 | 1.78 | 1.78 | 1.78 | 1.78        | 1.78 | 1.78 | 1.78 | 1.78 | 1.78 |
| 1990             | 0.0                           | 100.0 | 0.0   | 6.12    | 5.74 | 5.40 | 5.18        | 4.01 | 1.76 | 1.76 | 1.76 | 1.76 | 1.76        | 1.76 | 1.76 | 1.76 | 1.76 | 1.76 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.12    | 5.74 | 5.40 | 5.18        | 4.01 | 1.81 | 1.81 | 1.81 | 1.81 | 1.81        | 1.81 | 1.81 | 1.81 | 1.81 | 1.81 |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.12    | 5.74 | 5.40 | 5.18        | 4.01 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80        | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |
| 1990             | 100.0                         | 0.0   | 100.0 | 6.12    | 5.74 | 5.40 | 5.18        | 4.01 | 1.89 | 1.89 | 1.89 | 1.89 | 1.89        | 1.89 | 1.89 | 1.89 | 1.89 | 1.89 |
| 1995             | 0.0                           | 0.0   | 0.0   | 4.44    | 4.20 | 3.99 | 3.84        | 2.75 | 1.60 | 1.60 | 1.60 | 1.60 | 1.60        | 1.60 | 1.60 | 1.60 | 1.60 | 1.60 |
| 1995             | 0.0                           | 27.3  | 0.0   | 4.44    | 4.20 | 3.99 | 3.84        | 2.75 | 1.59 | 1.59 | 1.59 | 1.59 | 1.59        | 1.59 | 1.59 | 1.59 | 1.59 | 1.59 |
| 1995             | 0.0                           | 100.0 | 0.0   | 4.44    | 4.20 | 3.99 | 3.84        | 2.75 | 1.58 | 1.58 | 1.58 | 1.58 | 1.58        | 1.58 | 1.58 | 1.58 | 1.58 | 1.58 |
| 1995             | 20.6                          | 0.0   | 20.6  | 4.44    | 4.20 | 3.99 | 3.84        | 2.75 | 1.62 | 1.62 | 1.62 | 1.62 | 1.62        | 1.62 | 1.62 | 1.62 | 1.62 | 1.62 |
| 1995             | 20.6                          | 27.3  | 20.6  | 4.44    | 4.20 | 3.99 | 3.84        | 2.75 | 1.61 | 1.61 | 1.61 | 1.61 | 1.61        | 1.61 | 1.61 | 1.61 | 1.61 | 1.61 |
| 1995             | 100.0                         | 0.0   | 100.0 | 4.44    | 4.20 | 3.99 | 3.84        | 2.75 | 1.69 | 1.69 | 1.69 | 1.69 | 1.69        | 1.69 | 1.69 | 1.69 | 1.69 | 1.69 |

TABLE 13 (Continued)  
SENSITIVITY OF THE 1981/82 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                        |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------------------------|------|------|------|
|                  | PCCH                          | PCNC  | PCCC  | OF                                                              | AMBIENT<br>TEMP<br>25F | 50F  | 75F  | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.05                                                            | 5.36                   | 4.79 | 4.44 | 4.07 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.69                                                            | 5.93                   | 5.28 | 4.89 | 4.44 |
| 1975             | 0.0                           | 100.0 | 0.0   | 4.89                                                            | 7.48                   | 6.61 | 6.10 | 5.42 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.03                                                            | 5.48                   | 5.02 | 4.75 | 4.41 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.67                                                            | 6.05                   | 5.52 | 5.20 | 4.78 |
| 1975             | 100.0                         | 0.0   | 100.0 | 5.96                                                            | 5.94                   | 5.93 | 5.93 | 5.75 |
| 1980             | 0.0                           | 0.0   | 0.0   | 4.32                                                            | 3.98                   | 3.70 | 3.52 | 3.20 |
| 1980             | 0.0                           | 27.3  | 0.0   | 4.73                                                            | 4.36                   | 4.04 | 3.84 | 3.46 |
| 1980             | 0.0                           | 100.0 | 0.0   | 5.82                                                            | 5.36                   | 4.95 | 4.70 | 4.15 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.48                                                            | 4.17                   | 3.92 | 3.76 | 3.42 |
| 1980             | 20.6                          | 27.3  | 20.6  | 4.89                                                            | 4.55                   | 4.26 | 4.08 | 3.68 |
| 1980             | 100.0                         | 0.0   | 100.0 | 5.09                                                            | 4.91                   | 4.77 | 4.69 | 4.26 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.85                                                            | 3.59                   | 3.36 | 3.21 | 2.91 |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.18                                                            | 3.89                   | 3.64 | 3.48 | 3.12 |
| 1982             | 0.0                           | 100.0 | 0.0   | 5.06                                                            | 4.70                   | 4.38 | 4.18 | 3.68 |
| 1982             | 20.6                          | 0.0   | 20.6  | 4.04                                                            | 3.78                   | 3.56 | 3.42 | 3.08 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.37                                                            | 4.08                   | 3.84 | 3.69 | 3.29 |
| 1982             | 100.0                         | 0.0   | 100.0 | 4.77                                                            | 4.53                   | 4.34 | 4.23 | 3.74 |



TABLE 13 (Continued)  
SENSITIVITY OF THE 1990 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
HOT EMISSION FACTORS (GRAMS/MILE)  
SPEED = 5.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | PF    | COMPOSITE EMISSION FACTORS FOR THE LIGHT VEHICLE TYPES COMBINED |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------|------|
|                  | PCCH                          | PHCH  | PCCH  | AMBIENT<br>25F                                                  | 50F  | 75F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.67                                                            | 2.54 | 2.43 |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.92                                                            | 2.77 | 2.64 |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.59                                                            | 3.37 | 3.18 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.83                                                            | 2.70 | 2.59 |
| 1987             | 20.6                          | 27.3  | 20.6  | 3.08                                                            | 2.92 | 2.79 |
| 1987             | 100.0                         | 0.0   | 100.0 | 3.45                                                            | 3.30 | 3.19 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.06                                                            | 1.99 | 1.93 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.30                                                            | 2.21 | 2.13 |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.97                                                            | 2.80 | 2.66 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.19                                                            | 2.12 | 2.07 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.44                                                            | 2.35 | 2.27 |
| 1990             | 100.0                         | 0.0   | 100.0 | 2.71                                                            | 2.64 | 2.60 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.61                                                            | 1.60 | 1.59 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.85                                                            | 1.82 | 1.78 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.51                                                            | 2.39 | 2.29 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.72                                                            | 1.72 | 1.71 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.97                                                            | 1.93 | 1.90 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.15                                                            | 2.17 | 2.19 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.61                                                            | 1.60 | 1.59 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.85                                                            | 1.82 | 1.78 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.51                                                            | 2.39 | 2.29 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.72                                                            | 1.72 | 1.71 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.97                                                            | 1.93 | 1.90 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.15                                                            | 2.17 | 2.19 |

TABLE 14  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
MOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|------|
|                  | PCCH                          | PCNC  | PCCC  | OF      | 25F  | 50F  | 75F         | 100F | OF   | 25F     | 50F  | 75F  | 100F        | OF   | 25F  | 50F     | 75F  | 100F | OF          | 25F  | 50F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 4.18    | 3.57 | 3.05 | 2.75        | 2.42 | 4.73 | 4.08    | 3.54 | 3.21 | 2.82        | 4.73 | 4.08 | 3.54    | 3.21 | 2.82 | 4.73        | 4.08 | 3.54 | 3.21 |
| 1975             | 0.0                           | 27.3  | 0.0   | 4.82    | 4.13 | 3.56 | 3.20        | 2.79 | 5.47 | 4.75    | 4.13 | 3.75 | 3.25        | 5.47 | 4.75 | 4.13    | 3.75 | 3.25 | 5.47        | 4.75 | 4.13 | 3.75 |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.54    | 5.65 | 4.89 | 4.43        | 3.78 | 7.46 | 6.50    | 5.69 | 5.18 | 4.40        | 7.46 | 6.50 | 5.69    | 5.18 | 4.40 | 7.46        | 6.50 | 5.69 | 5.18 |
| 1975             | 20.6                          | 0.0   | 20.6  | 4.16    | 3.69 | 3.29 | 3.05        | 2.76 | 4.73 | 4.24    | 3.83 | 3.58 | 3.21        | 4.73 | 4.24 | 3.83    | 3.58 | 3.21 | 4.73        | 4.24 | 3.83 | 3.58 |
| 1975             | 20.6                          | 27.3  | 20.6  | 4.81    | 4.26 | 3.79 | 3.51        | 3.14 | 5.47 | 4.90    | 4.41 | 4.12 | 3.64        | 5.47 | 4.90 | 4.41    | 4.12 | 3.64 | 5.47        | 4.90 | 4.41 | 4.12 |
| 1975             | 100.0                         | 0.0   | 100.0 | 4.11    | 4.16 | 4.21 | 4.25        | 4.09 | 4.73 | 4.82    | 4.92 | 4.99 | 4.70        | 4.73 | 4.82 | 4.92    | 4.99 | 4.70 | 4.73        | 4.82 | 4.92 | 4.99 |
| 1980             | 0.0                           | 0.0   | 0.0   | 2.68    | 2.36 | 2.08 | 1.91        | 1.64 | 2.96 | 2.65    | 2.38 | 2.21 | 1.91        | 2.96 | 2.65 | 2.38    | 2.21 | 1.91 | 2.96        | 2.65 | 2.38 | 2.21 |
| 1980             | 0.0                           | 27.3  | 0.0   | 3.12    | 2.76 | 2.44 | 2.25        | 1.91 | 3.43 | 3.08    | 2.79 | 2.60 | 2.21        | 3.43 | 3.08 | 2.79    | 2.60 | 2.21 | 3.43        | 3.08 | 2.79 | 2.60 |
| 1980             | 0.0                           | 100.0 | 0.0   | 4.28    | 3.82 | 3.42 | 3.17        | 2.65 | 4.67 | 4.25    | 3.87 | 3.64 | 3.03        | 4.67 | 4.25 | 3.87    | 3.64 | 3.03 | 4.67        | 4.25 | 3.87 | 3.64 |
| 1980             | 20.6                          | 0.0   | 20.6  | 2.86    | 2.56 | 2.31 | 2.16        | 1.86 | 3.14 | 2.88    | 2.65 | 2.52 | 2.17        | 3.14 | 2.88 | 2.65    | 2.52 | 2.17 | 3.14        | 2.88 | 2.65 | 2.52 |
| 1980             | 20.6                          | 27.3  | 20.6  | 3.29    | 2.96 | 2.68 | 2.51        | 2.14 | 3.61 | 3.31    | 3.06 | 2.91 | 2.47        | 3.61 | 3.31 | 3.06    | 2.91 | 2.47 | 3.61        | 3.31 | 3.06 | 2.91 |
| 1980             | 100.0                         | 0.0   | 100.0 | 3.53    | 3.35 | 3.22 | 3.15        | 2.74 | 3.86 | 3.77    | 3.72 | 3.70 | 3.18        | 3.86 | 3.77 | 3.72    | 3.70 | 3.18 | 3.86        | 3.77 | 3.72 | 3.70 |
| 1992             | 0.0                           | 0.0   | 0.0   | 2.21    | 1.95 | 1.73 | 1.59        | 1.32 | 2.60 | 2.30    | 2.03 | 1.87 | 1.57        | 2.60 | 2.30 | 2.03    | 1.87 | 1.57 | 2.60        | 2.30 | 2.03 | 1.87 |
| 1992             | 0.0                           | 27.3  | 0.0   | 2.57    | 2.28 | 2.03 | 1.88        | 1.55 | 2.93 | 2.66    | 2.37 | 2.19 | 1.83        | 2.93 | 2.66 | 2.37    | 2.19 | 1.83 | 2.93        | 2.66 | 2.37 | 2.19 |
| 1992             | 0.0                           | 100.0 | 0.0   | 3.52    | 3.16 | 2.84 | 2.64        | 2.15 | 4.02 | 3.62    | 3.27 | 3.06 | 2.51        | 4.02 | 3.62 | 3.27    | 3.06 | 2.51 | 4.02        | 3.62 | 3.27 | 3.06 |
| 1992             | 20.6                          | 0.0   | 20.6  | 2.41    | 2.16 | 1.95 | 1.82        | 1.50 | 2.86 | 2.55    | 2.29 | 2.14 | 1.79        | 2.86 | 2.55 | 2.29    | 2.14 | 1.79 | 2.86        | 2.55 | 2.29 | 2.14 |
| 1992             | 20.6                          | 27.3  | 20.6  | 2.77    | 2.49 | 2.25 | 2.10        | 1.73 | 3.25 | 2.91    | 2.63 | 2.46 | 2.04        | 3.25 | 2.91 | 2.63    | 2.46 | 2.04 | 3.25        | 2.91 | 2.63 | 2.46 |
| 1992             | 100.0                         | 0.0   | 100.0 | 3.19    | 2.97 | 2.79 | 2.69        | 2.20 | 3.85 | 3.54    | 3.30 | 3.17 | 2.62        | 3.85 | 3.54 | 3.30    | 3.17 | 2.62 | 3.85        | 3.54 | 3.30 | 3.17 |

TABLE 14 (Continued)  
SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|------|----------------|------|--------------------|------|------|----------------|------|--------------------|------|
| 1987             | 0.0                           | 0.0   | 0.0   | 1.42 | 1.31           | 1.21 | 1.15               | 0.83 | 1.63 | 1.44           | 1.28 | 1.18               | 0.93 |
| 1987             | 0.0                           | 27.3  | 0.0   | 1.72 | 1.58           | 1.45 | 1.38               | 1.01 | 1.88 | 1.67           | 1.40 | 1.38               | 1.00 |
| 1987             | 0.0                           | 100.0 | 0.0   | 2.52 | 2.30           | 2.11 | 1.98               | 1.46 | 2.55 | 2.30           | 2.07 | 1.93               | 1.50 |
| 1987             | 20.6                          | 0.0   | 20.6  | 1.61 | 1.49           | 1.39 | 1.33               | 0.95 | 1.83 | 1.63           | 1.46 | 1.36               | 1.05 |
| 1987             | 20.6                          | 27.3  | 20.6  | 1.91 | 1.76           | 1.63 | 1.56               | 1.13 | 2.09 | 1.87           | 1.68 | 1.56               | 1.21 |
| 1987             | 100.0                         | 0.0   | 100.0 | 2.32 | 2.19           | 2.08 | 2.03               | 1.42 | 2.64 | 2.38           | 2.17 | 2.05               | 1.53 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.19 | 1.13           | 1.09 | 1.06               | 0.71 | 1.12 | 1.02           | 0.94 | 0.89               | 0.65 |
| 1990             | 0.0                           | 27.3  | 0.0   | 1.51 | 1.42           | 1.34 | 1.30               | 0.89 | 1.33 | 1.22           | 1.11 | 1.05               | 0.78 |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.36 | 2.18           | 2.02 | 1.91               | 1.35 | 1.90 | 1.74           | 1.59 | 1.49               | 1.12 |
| 1990             | 20.6                          | 0.0   | 20.6  | 1.35 | 1.20           | 1.26 | 1.24               | 0.82 | 1.28 | 1.17           | 1.08 | 1.03               | 0.75 |
| 1990             | 20.6                          | 27.3  | 20.6  | 1.67 | 1.59           | 1.51 | 1.47               | 1.00 | 1.49 | 1.37           | 1.26 | 1.20               | 0.88 |
| 1990             | 100.0                         | 0.0   | 100.0 | 1.98 | 1.94           | 1.91 | 1.91               | 1.26 | 1.88 | 1.76           | 1.66 | 1.60               | 1.13 |
| 1995             | 0.0                           | 0.0   | 0.0   | 0.99 | 0.99           | 1.00 | 1.00               | 0.63 | 0.75 | 0.72           | 0.69 | 0.67               | 0.45 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.33 | 1.30           | 1.27 | 1.25               | 0.81 | 0.95 | 0.89           | 0.84 | 0.82               | 0.56 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.25 | 2.11           | 1.98 | 1.89               | 1.29 | 1.46 | 1.36           | 1.26 | 1.10               | 0.84 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.13 | 1.15           | 1.16 | 1.18               | 0.74 | 0.87 | 0.84           | 0.81 | 0.80               | 0.53 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.48 | 1.45           | 1.43 | 1.42               | 0.92 | 1.06 | 1.01           | 0.97 | 0.94               | 0.63 |
| 1995             | 100.0                         | 0.0   | 100.0 | 1.70 | 1.75           | 1.80 | 1.85               | 1.17 | 1.33 | 1.30           | 1.28 | 1.28               | 0.84 |

TABLE 14 (Continued)  
SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
MOV EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES<br>PCHC PCHC PCCC |       | **HDDV**       |       |                    |       | **LDDV** |      |      |                    |
|------------------|-------------------------------------------------|-------|----------------|-------|--------------------|-------|----------|------|------|--------------------|
|                  |                                                 |       | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F  | OF       | 25F  | 50F  | TEMPERATURE<br>75F |
| 1975             | 0.0                                             | 0.0   | 0.0            | 33.43 | 33.43              | 33.43 | 2.26     | 2.26 | 2.26 | 2.26               |
| 1975             | 0.0                                             | 27.3  | 0.0            | 33.43 | 33.43              | 33.43 | 2.26     | 2.26 | 2.26 | 2.26               |
| 1975             | 0.0                                             | 100.0 | 0.0            | 33.43 | 33.43              | 33.43 | 2.27     | 2.27 | 2.27 | 2.27               |
| 1975             | 20.6                                            | 0.0   | 20.6           | 33.43 | 33.43              | 33.43 | 2.30     | 2.30 | 2.30 | 2.30               |
| 1975             | 20.6                                            | 27.3  | 20.6           | 33.43 | 33.43              | 33.43 | 2.30     | 2.30 | 2.30 | 2.30               |
| 1975             | 100.0                                           | 0.0   | 100.0          | 33.43 | 33.43              | 33.43 | 2.46     | 2.46 | 2.46 | 2.46               |
| 1980             | 0.0                                             | 0.0   | 0.0            | 33.43 | 33.43              | 33.43 | 2.03     | 2.03 | 2.03 | 2.03               |
| 1980             | 0.0                                             | 27.3  | 0.0            | 33.43 | 33.43              | 33.43 | 2.03     | 2.03 | 2.03 | 2.03               |
| 1980             | 0.0                                             | 100.0 | 0.0            | 33.43 | 33.43              | 33.43 | 2.03     | 2.03 | 2.03 | 2.03               |
| 1980             | 20.6                                            | 0.0   | 20.6           | 33.43 | 33.43              | 33.43 | 2.06     | 2.06 | 2.06 | 2.06               |
| 1980             | 20.6                                            | 27.3  | 20.6           | 33.43 | 33.43              | 33.43 | 2.06     | 2.06 | 2.06 | 2.06               |
| 1980             | 100.0                                           | 0.0   | 100.0          | 33.43 | 33.43              | 33.43 | 2.19     | 2.19 | 2.19 | 2.19               |
| 1982             | 0.0                                             | 0.0   | 0.0            | 33.43 | 33.43              | 33.43 | 1.83     | 1.83 | 1.83 | 1.83               |
| 1982             | 0.0                                             | 27.3  | 0.0            | 33.43 | 33.43              | 33.43 | 1.82     | 1.82 | 1.82 | 1.82               |
| 1982             | 0.0                                             | 100.0 | 0.0            | 33.43 | 33.43              | 33.43 | 1.82     | 1.82 | 1.82 | 1.82               |
| 1982             | 20.6                                            | 0.0   | 20.6           | 33.43 | 33.43              | 33.43 | 1.86     | 1.86 | 1.86 | 1.86               |
| 1982             | 20.6                                            | 27.3  | 20.6           | 33.43 | 33.43              | 33.43 | 1.85     | 1.85 | 1.85 | 1.85               |
| 1982             | 100.0                                           | 0.0   | 100.0          | 33.43 | 33.43              | 33.43 | 1.97     | 1.97 | 1.97 | 1.97               |

TABLE 14 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      | SPEED |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|------|---------|------|------|-------------|------|------|-------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F      | 25F   | 50F   | 75F         | 100F  | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F   | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 24.58   | 24.58 | 24.58 | 24.58       | 24.58 | 1.37 | 1.37    | 1.37 | 1.37 | 1.37        | 1.37 | 1.37 | 1.37  | 1.37 | 1.37 |
| 1987             | 0.0                           | 27.3  | 0.0   | 24.58   | 24.58 | 24.58 | 24.58       | 24.58 | 1.37 | 1.37    | 1.37 | 1.37 | 1.37        | 1.37 | 1.37 | 1.37  | 1.37 | 1.37 |
| 1987             | 0.0                           | 100.0 | 0.0   | 24.58   | 24.58 | 24.58 | 24.58       | 24.58 | 1.36 | 1.36    | 1.36 | 1.36 | 1.36        | 1.36 | 1.36 | 1.36  | 1.36 | 1.36 |
| 1987             | 20.6                          | 0.0   | 20.6  | 24.58   | 24.58 | 24.58 | 24.58       | 24.58 | 1.39 | 1.39    | 1.39 | 1.39 | 1.39        | 1.39 | 1.39 | 1.39  | 1.39 | 1.39 |
| 1987             | 20.6                          | 27.3  | 20.6  | 24.58   | 24.58 | 24.58 | 24.58       | 24.58 | 1.39 | 1.39    | 1.39 | 1.39 | 1.39        | 1.39 | 1.39 | 1.39  | 1.39 | 1.39 |
| 1987             | 100.0                         | 0.0   | 100.0 | 24.58   | 24.58 | 24.58 | 24.58       | 24.58 | 1.46 | 1.46    | 1.46 | 1.46 | 1.46        | 1.46 | 1.46 | 1.46  | 1.46 | 1.46 |
| 1990             | 0.0                           | 0.0   | 0.0   | 16.87   | 16.87 | 16.87 | 16.87       | 16.87 | 1.30 | 1.30    | 1.30 | 1.30 | 1.30        | 1.30 | 1.30 | 1.30  | 1.30 | 1.30 |
| 1990             | 0.0                           | 27.3  | 0.0   | 16.87   | 16.87 | 16.87 | 16.87       | 16.87 | 1.30 | 1.30    | 1.30 | 1.30 | 1.30        | 1.30 | 1.30 | 1.30  | 1.30 | 1.30 |
| 1990             | 0.0                           | 100.0 | 0.0   | 16.87   | 16.87 | 16.87 | 16.87       | 16.87 | 1.29 | 1.29    | 1.29 | 1.29 | 1.29        | 1.29 | 1.29 | 1.29  | 1.29 | 1.29 |
| 1990             | 20.6                          | 0.0   | 20.6  | 16.87   | 16.87 | 16.87 | 16.87       | 16.87 | 1.32 | 1.32    | 1.32 | 1.32 | 1.32        | 1.32 | 1.32 | 1.32  | 1.32 | 1.32 |
| 1990             | 20.6                          | 27.3  | 20.6  | 16.87   | 16.87 | 16.87 | 16.87       | 16.87 | 1.32 | 1.32    | 1.32 | 1.32 | 1.32        | 1.32 | 1.32 | 1.32  | 1.32 | 1.32 |
| 1990             | 100.0                         | 0.0   | 100.0 | 16.87   | 16.87 | 16.87 | 16.87       | 16.87 | 1.39 | 1.39    | 1.39 | 1.39 | 1.39        | 1.39 | 1.39 | 1.39  | 1.39 | 1.39 |
| 1995             | 0.0                           | 0.0   | 0.0   | 11.23   | 11.23 | 11.23 | 11.23       | 11.23 | 1.33 | 1.33    | 1.33 | 1.33 | 1.33        | 1.33 | 1.33 | 1.33  | 1.33 | 1.33 |
| 1995             | 0.0                           | 27.3  | 0.0   | 11.23   | 11.23 | 11.23 | 11.23       | 11.23 | 1.32 | 1.32    | 1.32 | 1.32 | 1.32        | 1.32 | 1.32 | 1.32  | 1.32 | 1.32 |
| 1995             | 0.0                           | 100.0 | 0.0   | 11.23   | 11.23 | 11.23 | 11.23       | 11.23 | 1.31 | 1.31    | 1.31 | 1.31 | 1.31        | 1.31 | 1.31 | 1.31  | 1.31 | 1.31 |
| 1995             | 20.6                          | 0.0   | 20.6  | 11.23   | 11.23 | 11.23 | 11.23       | 11.23 | 1.34 | 1.34    | 1.34 | 1.34 | 1.34        | 1.34 | 1.34 | 1.34  | 1.34 | 1.34 |
| 1995             | 20.6                          | 27.3  | 20.6  | 11.23   | 11.23 | 11.23 | 11.23       | 11.23 | 1.34 | 1.34    | 1.34 | 1.34 | 1.34        | 1.34 | 1.34 | 1.34  | 1.34 | 1.34 |
| 1995             | 100.0                         | 0.0   | 100.0 | 11.23   | 11.23 | 11.23 | 11.23       | 11.23 | 1.41 | 1.41    | 1.41 | 1.41 | 1.41        | 1.41 | 1.41 | 1.41  | 1.41 | 1.41 |

SENSITIVITY OF THE MORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

TABLE 14 (Continued)

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | 100F | 0F   | 25F  | 50F  | 75F  | 100F |
|------------------|-------------------------------|-------|-------|---------|-------|-------------|------|---------|------|-------------|------|------|------|------|------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F      | 25F   | 50F         | 75F  | 0F      | 25F  | 50F         | 75F  |      |      |      |      |      |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 13.16   | 11.57 | 10.18       | 9.33 | 0.0     | 0.0  | 0.0         | 0.0  | 8.12 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 13.16   | 11.57 | 10.18       | 9.33 | 0.0     | 0.0  | 0.0         | 0.0  | 8.12 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 13.16   | 11.57 | 10.18       | 9.33 | 0.0     | 0.0  | 0.0         | 0.0  | 8.12 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 13.16   | 11.57 | 10.18       | 9.33 | 0.0     | 0.0  | 0.0         | 0.0  | 8.12 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 13.16   | 11.57 | 10.18       | 9.33 | 0.0     | 0.0  | 0.0         | 0.0  | 8.12 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 13.16   | 11.57 | 10.18       | 9.33 | 0.0     | 0.0  | 0.0         | 0.0  | 8.12 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 10.79   | 10.12 | 9.51        | 9.12 | 2.38    | 2.38 | 2.38        | 2.38 | 7.61 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 1980             | 0.0                           | 27.3  | 0.0   | 10.79   | 10.12 | 9.51        | 9.12 | 2.38    | 2.38 | 2.38        | 2.38 | 7.61 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 1980             | 0.0                           | 100.0 | 0.0   | 10.79   | 10.12 | 9.51        | 9.12 | 2.38    | 2.38 | 2.38        | 2.38 | 7.61 | 2.38 | 2.38 | 2.38 | 2.38 | 2.38 |
| 1980             | 20.6                          | 0.0   | 20.6  | 10.79   | 10.12 | 9.51        | 9.12 | 2.42    | 2.42 | 2.42        | 2.42 | 7.61 | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 |
| 1980             | 20.6                          | 27.3  | 20.6  | 10.79   | 10.12 | 9.51        | 9.12 | 2.42    | 2.42 | 2.42        | 2.42 | 7.61 | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 |
| 1980             | 100.0                         | 0.0   | 100.0 | 10.79   | 10.12 | 9.51        | 9.12 | 2.58    | 2.58 | 2.58        | 2.58 | 7.61 | 2.58 | 2.58 | 2.58 | 2.58 | 2.58 |
| 1982             | 0.0                           | 0.0   | 0.0   | 10.33   | 9.85  | 9.42        | 9.14 | 2.55    | 2.55 | 2.55        | 2.55 | 7.81 | 2.55 | 2.55 | 2.55 | 2.55 | 2.55 |
| 1982             | 0.0                           | 27.3  | 0.0   | 10.33   | 9.85  | 9.42        | 9.14 | 2.54    | 2.54 | 2.54        | 2.54 | 7.81 | 2.54 | 2.54 | 2.54 | 2.54 | 2.54 |
| 1982             | 0.0                           | 100.0 | 0.0   | 10.33   | 9.85  | 9.42        | 9.14 | 2.54    | 2.54 | 2.54        | 2.54 | 7.81 | 2.54 | 2.54 | 2.54 | 2.54 | 2.54 |
| 1982             | 20.6                          | 0.0   | 20.6  | 10.33   | 9.85  | 9.42        | 9.14 | 2.59    | 2.59 | 2.59        | 2.59 | 7.81 | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 |
| 1982             | 20.6                          | 27.3  | 20.6  | 10.33   | 9.85  | 9.42        | 9.14 | 2.59    | 2.59 | 2.59        | 2.59 | 7.81 | 2.59 | 2.59 | 2.59 | 2.59 | 2.59 |
| 1982             | 100.0                         | 0.0   | 100.0 | 10.33   | 9.85  | 9.42        | 9.14 | 2.75    | 2.75 | 2.75        | 2.75 | 7.81 | 2.75 | 2.75 | 2.75 | 2.75 | 2.75 |



TABLE 14 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDBGV** |                |      | TEMPERATURE |      |      | **LODT**       |      |      |      |
|------------------|-------------------------------|-------|-------|-----------|----------------|------|-------------|------|------|----------------|------|------|------|
|                  | PCHH                          | PCHC  | PCCC  | 0F        | AMBIENT<br>25F | 50F  | 75F         | 100F | 0F   | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 8.44      | 7.96           | 7.53 | 7.26        | 6.01 | 1.91 | 1.91           | 1.91 | 1.91 | 1.91 |
| 1987             | 0.0                           | 27.3  | 0.0   | 8.44      | 7.96           | 7.53 | 7.26        | 6.01 | 1.91 | 1.91           | 1.91 | 1.91 | 1.91 |
| 1987             | 0.0                           | 100.0 | 0.0   | 8.44      | 7.96           | 7.53 | 7.26        | 6.01 | 1.90 | 1.90           | 1.90 | 1.90 | 1.90 |
| 1987             | 20.6                          | 0.0   | 20.6  | 8.44      | 7.96           | 7.53 | 7.26        | 6.01 | 1.94 | 1.94           | 1.94 | 1.94 | 1.94 |
| 1987             | 20.6                          | 27.3  | 20.6  | 8.44      | 7.96           | 7.53 | 7.26        | 6.01 | 1.93 | 1.93           | 1.93 | 1.93 | 1.93 |
| 1987             | 100.0                         | 0.0   | 100.0 | 8.44      | 7.96           | 7.53 | 7.26        | 6.01 | 2.04 | 2.04           | 2.04 | 2.04 | 2.04 |
| 1990             | 0.0                           | 0.0   | 0.0   | 6.43      | 6.03           | 5.67 | 5.44        | 4.21 | 1.48 | 1.48           | 1.48 | 1.48 | 1.48 |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.43      | 6.03           | 5.67 | 5.44        | 4.21 | 1.47 | 1.47           | 1.47 | 1.47 | 1.47 |
| 1990             | 0.0                           | 100.0 | 0.0   | 6.43      | 6.03           | 5.67 | 5.44        | 4.21 | 1.46 | 1.46           | 1.46 | 1.46 | 1.46 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.43      | 6.03           | 5.67 | 5.44        | 4.21 | 1.50 | 1.50           | 1.50 | 1.50 | 1.50 |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.43      | 6.03           | 5.67 | 5.44        | 4.21 | 1.49 | 1.49           | 1.49 | 1.49 | 1.49 |
| 1990             | 100.0                         | 0.0   | 100.0 | 6.43      | 6.03           | 5.67 | 5.44        | 4.21 | 1.57 | 1.57           | 1.57 | 1.57 | 1.57 |
| 1995             | 0.0                           | 0.0   | 0.0   | 4.67      | 4.42           | 4.19 | 4.04        | 2.89 | 1.33 | 1.33           | 1.33 | 1.33 | 1.33 |
| 1995             | 0.0                           | 27.3  | 0.0   | 4.67      | 4.42           | 4.19 | 4.04        | 2.89 | 1.32 | 1.32           | 1.32 | 1.32 | 1.32 |
| 1995             | 0.0                           | 100.0 | 0.0   | 4.67      | 4.42           | 4.19 | 4.04        | 2.89 | 1.31 | 1.31           | 1.31 | 1.31 | 1.31 |
| 1995             | 20.6                          | 0.0   | 20.6  | 4.67      | 4.42           | 4.19 | 4.04        | 2.89 | 1.34 | 1.34           | 1.34 | 1.34 | 1.34 |
| 1995             | 20.6                          | 27.3  | 20.6  | 4.67      | 4.42           | 4.19 | 4.04        | 2.89 | 1.34 | 1.34           | 1.34 | 1.34 | 1.34 |
| 1995             | 100.0                         | 0.0   | 100.0 | 4.67      | 4.42           | 4.19 | 4.04        | 2.89 | 1.40 | 1.40           | 1.40 | 1.40 | 1.40 |



TABLE 14 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE LIGHT VEHICLE TYPES COMBINED |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------|------|------|
|                  | PCCN                          | PHC   | PCCC  | AMBIENT<br>25F                                                  | 50F  | 75F  | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.55                                                            | 4.92 | 4.39 | 3.71 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.16                                                            | 5.46 | 4.86 | 4.06 |
| 1975             | 0.0                           | 100.0 | 0.0   | 7.77                                                            | 6.88 | 6.12 | 4.59 |
| 1975             | 20.6                          | 0.0   | 20.6  | 5.54                                                            | 5.04 | 4.62 | 4.03 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.15                                                            | 5.57 | 4.79 | 4.38 |
| 1975             | 100.0                         | 0.0   | 100.0 | 5.51                                                            | 5.48 | 5.48 | 5.27 |
| 1980             | 0.0                           | 0.0   | 0.0   | 4.05                                                            | 3.73 | 3.45 | 3.28 |
| 1980             | 0.0                           | 27.3  | 0.0   | 4.45                                                            | 4.10 | 3.79 | 3.60 |
| 1980             | 0.0                           | 100.0 | 0.0   | 5.53                                                            | 5.08 | 4.69 | 4.45 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.21                                                            | 3.92 | 3.67 | 3.52 |
| 1980             | 20.6                          | 27.3  | 20.6  | 4.61                                                            | 4.29 | 4.01 | 3.84 |
| 1980             | 100.0                         | 0.0   | 100.0 | 4.83                                                            | 4.65 | 4.52 | 4.44 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.62                                                            | 3.35 | 3.13 | 2.99 |
| 1982             | 0.0                           | 27.3  | 0.0   | 3.94                                                            | 3.66 | 3.41 | 3.25 |
| 1982             | 0.0                           | 100.0 | 0.0   | 4.81                                                            | 4.46 | 4.15 | 3.95 |
| 1982             | 20.6                          | 0.0   | 20.6  | 3.81                                                            | 3.55 | 3.33 | 3.20 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.13                                                            | 3.85 | 3.61 | 3.46 |
| 1982             | 100.0                         | 0.0   | 100.0 | 4.54                                                            | 4.30 | 4.11 | 4.01 |
|                  |                               |       |       |                                                                 |      |      | 3.50 |

TABLE 14 (Continued)

SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 10.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |                         |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|-------------------------|
|                  | PCCN                          | PCMC  | PCCC  | OF                                                              | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.50                                                            | 2.37           | 2.26 | 2.20 1.88               |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.75                                                            | 2.60           | 2.47 | 2.39 2.03               |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.42                                                            | 3.21           | 3.02 | 2.90 2.41               |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.66                                                            | 2.53           | 2.42 | 2.35 1.99               |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.92                                                            | 2.76           | 2.62 | 2.54 2.13               |
| 1987             | 100.0                         | 0.0   | 100.0 | 3.29                                                            | 3.14           | 3.02 | 2.95 2.34               |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.93                                                            | 1.86           | 1.80 | 1.77 1.45               |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.18                                                            | 2.08           | 2.00 | 1.95 1.58               |
| 1990             | 0.0                           | 100.0 | 0.0   | 2.84                                                            | 2.68           | 2.53 | 2.43 1.94               |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.06                                                            | 2.00           | 1.94 | 1.91 1.54               |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.31                                                            | 2.22           | 2.14 | 2.09 1.67               |
| 1990             | 100.0                         | 0.0   | 100.0 | 2.58                                                            | 2.52           | 2.47 | 2.45 1.89               |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.50                                                            | 1.49           | 1.48 | 1.48 1.16               |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.75                                                            | 1.71           | 1.67 | 1.65 1.29               |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.40                                                            | 2.29           | 2.18 | 2.11 1.63               |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.61                                                            | 1.61           | 1.61 | 1.61 1.24               |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.86                                                            | 1.83           | 1.80 | 1.78 1.37               |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.04                                                            | 2.06           | 2.09 | 2.11 1.57               |

TABLE 15  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
MOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6\*\*\*\*\*HFH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|---------|------|-------------|------|---------|------|-------------|------|---------|------|-------------|------|---------|------|-------------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F      | 25F  | 50F         | 75F  | 100F    | 0F   | 25F         | 50F  | 100F    | 0F   | 25F         | 50F  | 100F    | 0F   | 25F         | 50F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 4.36    | 3.74 | 3.21        | 2.90 | 2.55    | 4.98 | 4.32        | 3.76 | 3.42    | 3.00 | 3.46        | 3.99 | 3.52    | 3.41 | 3.86        | 4.98 |
| 1975             | 0.0                           | 27.3  | 0.0   | 5.05    | 4.34 | 3.74        | 3.38 | 2.94    | 5.77 | 5.02        | 4.38 | 3.99    | 3.46 | 3.96        | 4.67 | 4.21    | 3.81 | 4.38        | 5.77 |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.86    | 5.94 | 5.16        | 4.67 | 3.99    | 7.88 | 6.89        | 6.04 | 5.52    | 4.67 | 5.52        | 6.04 | 5.52    | 4.67 | 5.52        | 6.04 |
| 1975             | 20.6                          | 0.0   | 20.6  | 4.36    | 3.87 | 3.47        | 3.22 | 2.91    | 4.99 | 4.48        | 4.06 | 3.81    | 3.41 | 3.86        | 4.06 | 3.81    | 3.41 | 3.86        | 4.06 |
| 1975             | 20.6                          | 27.3  | 20.6  | 5.04    | 4.47 | 4.00        | 3.71 | 3.30    | 5.78 | 5.18        | 4.69 | 4.38    | 3.96 | 4.38        | 4.69 | 4.38    | 3.96 | 4.38        | 4.69 |
| 1975             | 100.0                         | 0.0   | 100.0 | 4.33    | 4.38 | 4.44        | 4.49 | 4.30    | 5.01 | 5.12        | 5.23 | 5.12    | 4.98 | 5.12        | 5.23 | 5.12    | 4.98 | 5.12        | 5.23 |
| SPEED TOTAL      |                               |       |       |         |      |             |      |         |      |             |      |         |      |             |      |         |      |             |      |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.04    | 2.68 | 2.37        | 2.18 | 1.86    | 3.36 | 3.02        | 2.72 | 2.53    | 2.18 | 2.53        | 2.72 | 2.53    | 2.18 | 2.53        | 2.72 |
| 1980             | 0.0                           | 27.3  | 0.0   | 3.53    | 3.13 | 2.78        | 2.57 | 2.17    | 3.89 | 3.51        | 3.19 | 2.98    | 2.53 | 2.98        | 3.19 | 2.98    | 2.53 | 2.98        | 3.19 |
| 1980             | 0.0                           | 100.0 | 0.0   | 4.84    | 4.33 | 3.88        | 3.61 | 3.01    | 5.31 | 4.84        | 4.43 | 4.17    | 3.47 | 4.17        | 4.43 | 4.17    | 3.47 | 4.17        | 4.43 |
| 1980             | 20.6                          | 0.0   | 20.6  | 3.25    | 2.92 | 2.64        | 2.47 | 2.12    | 3.59 | 3.29        | 3.04 | 2.89    | 2.48 | 3.04        | 3.29 | 2.89    | 2.48 | 3.04        | 3.29 |
| 1980             | 20.6                          | 27.3  | 20.6  | 3.74    | 3.37 | 3.05        | 2.86 | 2.43    | 4.12 | 3.79        | 3.51 | 3.34    | 2.89 | 3.51        | 3.79 | 3.34    | 2.89 | 3.51        | 3.79 |
| 1980             | 100.0                         | 0.0   | 100.0 | 4.07    | 3.86 | 3.69        | 3.60 | 3.11    | 4.46 | 4.35        | 4.28 | 4.26    | 3.63 | 4.28        | 4.35 | 4.26    | 3.63 | 4.28        | 4.35 |
| TOTAL            |                               |       |       |         |      |             |      |         |      |             |      |         |      |             |      |         |      |             |      |
| 1982             | 0.0                           | 0.0   | 0.0   | 2.57    | 2.27 | 2.01        | 1.86 | 1.54    | 3.03 | 2.68        | 2.37 | 2.19    | 1.84 | 2.37        | 2.68 | 2.19    | 1.84 | 2.37        | 2.68 |
| 1982             | 0.0                           | 27.3  | 0.0   | 2.99    | 2.65 | 2.37        | 2.19 | 1.80    | 3.48 | 3.10        | 2.77 | 2.56    | 2.14 | 2.77        | 3.10 | 2.56    | 2.14 | 2.77        | 3.10 |
| 1982             | 0.0                           | 100.0 | 0.0   | 4.09    | 3.67 | 3.31        | 3.08 | 2.50    | 4.67 | 4.21        | 3.82 | 3.57    | 2.93 | 3.82        | 4.21 | 3.57    | 2.93 | 3.82        | 4.21 |
| 1982             | 20.6                          | 0.0   | 20.6  | 2.82    | 2.52 | 2.27        | 2.12 | 1.75    | 3.35 | 2.99        | 2.68 | 2.50    | 2.09 | 2.68        | 2.99 | 2.50    | 2.09 | 2.68        | 2.99 |
| 1982             | 20.6                          | 27.3  | 20.6  | 3.23    | 2.91 | 2.63        | 2.46 | 2.01    | 3.79 | 3.41        | 3.08 | 2.88    | 2.38 | 3.08        | 3.41 | 2.88    | 2.38 | 3.08        | 3.41 |
| 1982             | 100.0                         | 0.0   | 100.0 | 3.77    | 3.47 | 3.27        | 3.15 | 2.56    | 4.55 | 4.18        | 3.88 | 3.71    | 3.05 | 3.88        | 4.18 | 3.71    | 3.05 | 3.88        | 4.18 |

TABLE 15 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOV EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6\*\*\*\*\*MPH

| CALC YEAR | COLD/HOT START PERCENTAGES<br>PCHH PCHC PCCC |       |       | OF   | AMBIENT 25F | 50F  | 75F  | 100F | OF   | AMBIENT 25F | 50F  | 75F  | 100F | TEMPERATURE 75F | 100F |
|-----------|----------------------------------------------|-------|-------|------|-------------|------|------|------|------|-------------|------|------|------|-----------------|------|
| 1987      | 0.0                                          | 0.0   | 0.0   | 1.72 | 1.58        | 1.46 | 1.39 | 1.01 | 1.95 | 1.73        | 1.53 | 1.42 | 1.11 |                 |      |
| 1987      | 0.0                                          | 27.3  | 0.0   | 2.02 | 1.51        | 1.76 | 1.66 | 1.21 | 2.25 | 2.01        | 1.79 | 1.66 | 1.30 |                 |      |
| 1987      | 0.0                                          | 100.0 | 0.0   | 3.04 | 2.78        | 2.54 | 2.39 | 1.77 | 3.06 | 2.75        | 2.49 | 2.32 | 1.80 |                 |      |
| 1987      | 20.6                                         | 0.0   | 20.6  | 1.95 | 1.80        | 1.68 | 1.61 | 1.15 | 2.21 | 1.96        | 1.76 | 1.61 | 1.26 |                 |      |
| 1987      | 20.6                                         | 27.3  | 20.6  | 2.31 | 2.11        | 1.98 | 1.88 | 1.36 | 2.51 | 2.24        | 2.02 | 1.88 | 1.45 |                 |      |
| 1987      | 100.0                                        | 0.0   | 100.0 | 2.82 | 2.65        | 2.52 | 2.46 | 1.71 | 3.18 | 2.87        | 2.61 | 2.47 | 1.83 |                 |      |
| 1990      | 0.0                                          | 0.0   | 0.0   | 1.44 | 1.38        | 1.33 | 1.29 | 0.86 | 1.36 | 1.24        | 1.14 | 1.07 | 0.79 |                 |      |
| 1990      | 0.0                                          | 27.3  | 0.0   | 1.83 | 1.71        | 1.63 | 1.58 | 1.04 | 1.62 | 1.47        | 1.35 | 1.27 | 0.94 |                 |      |
| 1990      | 0.0                                          | 100.0 | 0.0   | 2.87 | 2.66        | 2.46 | 2.33 | 1.64 | 2.30 | 2.10        | 1.92 | 1.81 | 1.35 |                 |      |
| 1990      | 20.6                                         | 0.0   | 20.6  | 1.64 | 1.58        | 1.51 | 1.51 | 1.00 | 1.55 | 1.42        | 1.32 | 1.25 | 0.91 |                 |      |
| 1990      | 20.6                                         | 27.3  | 20.6  | 2.03 | 1.93        | 1.84 | 1.79 | 1.21 | 1.81 | 1.66        | 1.53 | 1.45 | 1.06 |                 |      |
| 1990      | 100.0                                        | 0.0   | 100.0 | 2.41 | 2.16        | 2.33 | 2.32 | 1.53 | 2.29 | 2.13        | 2.01 | 1.94 | 1.37 |                 |      |
| 1995      | 0.0                                          | 0.0   | 0.0   | 1.20 | 1.21        | 1.22 | 1.23 | 0.77 | 0.92 | 0.88        | 0.84 | 0.82 | 0.55 |                 |      |
| 1995      | 0.0                                          | 27.3  | 0.0   | 1.62 | 1.58        | 1.55 | 1.52 | 0.99 | 1.15 | 1.09        | 1.03 | 1.00 | 0.68 |                 |      |
| 1995      | 0.0                                          | 100.0 | 0.0   | 2.75 | 2.58        | 2.42 | 2.31 | 1.58 | 1.79 | 1.65        | 1.53 | 1.45 | 1.02 |                 |      |
| 1995      | 20.6                                         | 0.0   | 20.6  | 1.38 | 1.40        | 1.42 | 1.44 | 0.90 | 1.06 | 1.02        | 0.99 | 0.98 | 0.65 |                 |      |
| 1995      | 20.6                                         | 27.3  | 20.6  | 1.80 | 1.77        | 1.75 | 1.74 | 1.13 | 1.30 | 1.24        | 1.18 | 1.15 | 0.77 |                 |      |
| 1995      | 100.0                                        | 0.0   | 100.0 | 2.07 | 2.13        | 2.20 | 2.26 | 1.43 | 1.62 | 1.59        | 1.57 | 1.56 | 1.02 |                 |      |

TABLE 15 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 10.6.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |       |       |                    | **LDDV** |      |      |                    |
|------------------|-------------------------------|-------|-------|----------|-------|-------|--------------------|----------|------|------|--------------------|
|                  | PCCH                          | PCHC  | PCCC  | 0F       | 25F   | 50F   | TEMPERATURE<br>75F | 100F     | 0F   | 25F  | TEMPERATURE<br>75F |
| 1975             | 0.0                           | 0.0   | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.74 | 1.74 | 1.74               |
| 1975             | 0.0                           | 27.3  | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.74 | 1.74 | 1.74               |
| 1975             | 0.0                           | 100.0 | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.75 | 1.75 | 1.75               |
| 1975             | 20.6                          | 0.0   | 20.6  | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.77 | 1.77 | 1.77               |
| 1975             | 20.6                          | 27.3  | 20.6  | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.78 | 1.78 | 1.78               |
| 1975             | 100.0                         | 0.0   | 100.0 | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.90 | 1.90 | 1.90               |
| 1980             | 0.0                           | 0.0   | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.57 | 1.57 | 1.57               |
| 1980             | 0.0                           | 27.3  | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.57 | 1.57 | 1.57               |
| 1980             | 0.0                           | 100.0 | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.56 | 1.56 | 1.56               |
| 1980             | 20.6                          | 0.0   | 20.6  | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.59 | 1.59 | 1.59               |
| 1980             | 20.6                          | 27.3  | 20.6  | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.59 | 1.59 | 1.59               |
| 1980             | 100.0                         | 0.0   | 100.0 | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.69 | 1.69 | 1.69               |
| 1982             | 0.0                           | 0.0   | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.41 | 1.41 | 1.41               |
| 1982             | 0.0                           | 27.3  | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.41 | 1.41 | 1.41               |
| 1982             | 0.0                           | 100.0 | 0.0   | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.40 | 1.40 | 1.40               |
| 1982             | 20.6                          | 0.0   | 20.6  | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.43 | 1.43 | 1.43               |
| 1982             | 20.6                          | 27.3  | 20.6  | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.43 | 1.43 | 1.43               |
| 1982             | 100.0                         | 0.0   | 100.0 | 25.80    | 25.80 | 25.80 | 25.80              | 25.80    | 1.52 | 1.52 | 1.52               |

TABLE 15 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      | SPEED |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|------|---------|------|------|-------------|------|------|-------|------|------|
|                  | PCCH                          | PHCH  | PHCC  | 0F      | 25F   | 50F   | 75F         | 100F  | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F   | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 18.97   | 18.97 | 18.97 | 18.97       | 18.97 | 1.06 | 1.06    | 1.06 | 1.06 | 1.06        | 1.06 | 1.06 | 1.06  | 1.06 | 1.06 |
| 1987             | 0.0                           | 27.3  | 0.0   | 18.97   | 18.97 | 18.97 | 18.97       | 18.97 | 1.06 | 1.06    | 1.06 | 1.06 | 1.06        | 1.06 | 1.06 | 1.06  | 1.06 | 1.06 |
| 1987             | 0.0                           | 100.0 | 0.0   | 18.97   | 18.97 | 18.97 | 18.97       | 18.97 | 1.05 | 1.05    | 1.05 | 1.05 | 1.05        | 1.05 | 1.05 | 1.05  | 1.05 | 1.05 |
| 1987             | 20.6                          | 0.0   | 20.6  | 18.97   | 18.97 | 18.97 | 18.97       | 18.97 | 1.07 | 1.07    | 1.07 | 1.07 | 1.07        | 1.07 | 1.07 | 1.07  | 1.07 | 1.07 |
| 1987             | 20.6                          | 27.3  | 20.6  | 18.97   | 18.97 | 18.97 | 18.97       | 18.97 | 1.07 | 1.07    | 1.07 | 1.07 | 1.07        | 1.07 | 1.07 | 1.07  | 1.07 | 1.07 |
| 1987             | 100.0                         | 0.0   | 100.0 | 18.97   | 18.97 | 18.97 | 18.97       | 18.97 | 1.13 | 1.13    | 1.13 | 1.13 | 1.13        | 1.13 | 1.13 | 1.13  | 1.13 | 1.13 |
| 1990             | 0.0                           | 0.0   | 0.0   | 13.02   | 13.02 | 13.02 | 13.02       | 13.02 | 1.01 | 1.01    | 1.01 | 1.01 | 1.01        | 1.01 | 1.01 | 1.01  | 1.01 | 1.01 |
| 1990             | 0.0                           | 27.3  | 0.0   | 13.02   | 13.02 | 13.02 | 13.02       | 13.02 | 1.00 | 1.00    | 1.00 | 1.00 | 1.00        | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| 1990             | 0.0                           | 100.0 | 0.0   | 13.02   | 13.02 | 13.02 | 13.02       | 13.02 | 0.99 | 0.99    | 0.99 | 0.99 | 0.99        | 0.99 | 0.99 | 0.99  | 0.99 | 0.99 |
| 1990             | 20.6                          | 0.0   | 20.6  | 13.02   | 13.02 | 13.02 | 13.02       | 13.02 | 1.02 | 1.02    | 1.02 | 1.02 | 1.02        | 1.02 | 1.02 | 1.02  | 1.02 | 1.02 |
| 1990             | 20.6                          | 27.3  | 20.6  | 13.02   | 13.02 | 13.02 | 13.02       | 13.02 | 1.02 | 1.02    | 1.02 | 1.02 | 1.02        | 1.02 | 1.02 | 1.02  | 1.02 | 1.02 |
| 1990             | 100.0                         | 0.0   | 100.0 | 13.02   | 13.02 | 13.02 | 13.02       | 13.02 | 1.07 | 1.07    | 1.07 | 1.07 | 1.07        | 1.07 | 1.07 | 1.07  | 1.07 | 1.07 |
| 1995             | 0.0                           | 0.0   | 0.0   | 8.67    | 8.67  | 8.67  | 8.67        | 8.67  | 1.02 | 1.02    | 1.02 | 1.02 | 1.02        | 1.02 | 1.02 | 1.02  | 1.02 | 1.02 |
| 1995             | 0.0                           | 27.3  | 0.0   | 8.67    | 8.67  | 8.67  | 8.67        | 8.67  | 1.02 | 1.02    | 1.02 | 1.02 | 1.02        | 1.02 | 1.02 | 1.02  | 1.02 | 1.02 |
| 1995             | 0.0                           | 100.0 | 0.0   | 8.67    | 8.67  | 8.67  | 8.67        | 8.67  | 1.01 | 1.01    | 1.01 | 1.01 | 1.01        | 1.01 | 1.01 | 1.01  | 1.01 | 1.01 |
| 1995             | 20.6                          | 0.0   | 20.6  | 8.67    | 8.67  | 8.67  | 8.67        | 8.67  | 1.04 | 1.04    | 1.04 | 1.04 | 1.04        | 1.04 | 1.04 | 1.04  | 1.04 | 1.04 |
| 1995             | 20.6                          | 27.3  | 20.6  | 8.67    | 8.67  | 8.67  | 8.67        | 8.67  | 1.03 | 1.03    | 1.03 | 1.03 | 1.03        | 1.03 | 1.03 | 1.03  | 1.03 | 1.03 |
| 1995             | 100.0                         | 0.0   | 100.0 | 8.67    | 8.67  | 8.67  | 8.67        | 8.67  | 1.09 | 1.09    | 1.09 | 1.09 | 1.09        | 1.09 | 1.09 | 1.09  | 1.09 | 1.09 |



TABLE 15 (Continued)  
SENSITIVITY OF THE MONITEP EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VPT PERCENTAGES BY CALENDAR YEAR  
MON EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>TEMP |       |       | TEMPERATURE<br>75F |      |      | AMBIENT<br>TEMP |      |      | TEMPERATURE<br>75F |      |      | AMBIENT<br>TEMP |      |      | TEMPERATURE<br>75F |      |      |
|------------------|-------------------------------|-------|-------|-----------------|-------|-------|--------------------|------|------|-----------------|------|------|--------------------|------|------|-----------------|------|------|--------------------|------|------|
|                  | PCCC                          | PCNC  | PCCC  | OF              | 25F   | 50F   | OF                 | 25F  | 50F  | OF              | 25F  | 50F  | OF                 | 25F  | 50F  | OF              | 25F  | 50F  | OF                 | 25F  | 50F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 14.58           | 12.64 | 11.15 | 10.19              | 8.87 | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 14.58           | 12.64 | 11.15 | 10.19              | 8.87 | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 14.58           | 12.64 | 11.15 | 10.19              | 8.87 | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 14.58           | 12.64 | 11.15 | 10.19              | 8.87 | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 14.58           | 12.64 | 11.15 | 10.19              | 8.87 | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 14.58           | 12.64 | 11.15 | 10.19              | 8.87 | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  | 0.0             | 0.0  | 0.0  | 0.0                | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 11.79           | 11.05 | 10.39 | 9.97               | 8.51 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 |
| 1980             | 0.0                           | 27.3  | 0.0   | 11.79           | 11.05 | 10.39 | 9.97               | 8.51 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 |
| 1980             | 0.0                           | 100.0 | 0.0   | 11.79           | 11.05 | 10.39 | 9.97               | 8.51 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 |
| 1980             | 20.6                          | 0.0   | 20.6  | 11.79           | 11.05 | 10.39 | 9.97               | 8.51 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 |
| 1980             | 20.6                          | 27.3  | 20.6  | 11.79           | 11.05 | 10.39 | 9.97               | 8.51 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 |
| 1980             | 100.0                         | 0.0   | 100.0 | 11.79           | 11.05 | 10.39 | 9.97               | 8.51 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 | 1.84            | 1.84 | 1.84 | 1.84               | 1.84 | 1.84 |
| 1982             | 0.0                           | 0.0   | 0.0   | 11.29           | 10.77 | 10.29 | 9.98               | 8.54 | 1.97 | 1.97            | 1.97 | 1.97 | 1.97               | 1.97 | 1.97 | 1.97            | 1.97 | 1.97 | 1.97               | 1.97 | 1.97 |
| 1982             | 0.0                           | 27.3  | 0.0   | 11.29           | 10.77 | 10.29 | 9.98               | 8.54 | 1.96 | 1.96            | 1.96 | 1.96 | 1.96               | 1.96 | 1.96 | 1.96            | 1.96 | 1.96 | 1.96               | 1.96 | 1.96 |
| 1982             | 0.0                           | 100.0 | 0.0   | 11.29           | 10.77 | 10.29 | 9.98               | 8.54 | 1.96 | 1.96            | 1.96 | 1.96 | 1.96               | 1.96 | 1.96 | 1.96            | 1.96 | 1.96 | 1.96               | 1.96 | 1.96 |
| 1982             | 20.6                          | 0.0   | 20.6  | 11.29           | 10.77 | 10.29 | 9.98               | 8.54 | 2.00 | 2.00            | 2.00 | 2.00 | 2.00               | 2.00 | 2.00 | 2.00            | 2.00 | 2.00 | 2.00               | 2.00 | 2.00 |
| 1982             | 20.6                          | 27.3  | 20.6  | 11.29           | 10.77 | 10.29 | 9.98               | 8.54 | 2.00 | 2.00            | 2.00 | 2.00 | 2.00               | 2.00 | 2.00 | 2.00            | 2.00 | 2.00 | 2.00               | 2.00 | 2.00 |
| 1982             | 100.0                         | 0.0   | 100.0 | 11.29           | 10.77 | 10.29 | 9.98               | 8.54 | 2.12 | 2.12            | 2.12 | 2.12 | 2.12               | 2.12 | 2.12 | 2.12            | 2.12 | 2.12 | 2.12               | 2.12 | 2.12 |



TABLE 15 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 19.6.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|
|                  | PCH                           | PHC   | PCC   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F     | 75F  | 100F | 0F          | 25F  | 75F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 8.69    | 8.23 | 7.93 | 6.57        | 1.48 | 1.48 | 1.48    | 1.48 | 1.48 | 1.48        | 1.48 | 1.48 |
| 1987             | 0.0                           | 27.3  | 0.0   | 8.69    | 8.23 | 7.93 | 6.57        | 1.47 | 1.47 | 1.47    | 1.47 | 1.47 | 1.47        | 1.47 | 1.47 |
| 1987             | 0.0                           | 100.0 | 0.0   | 8.69    | 8.23 | 7.93 | 6.57        | 1.46 | 1.46 | 1.46    | 1.46 | 1.46 | 1.46        | 1.46 | 1.46 |
| 1987             | 20.6                          | 0.0   | 20.6  | 8.69    | 8.23 | 7.93 | 6.57        | 1.50 | 1.50 | 1.50    | 1.50 | 1.50 | 1.50        | 1.50 | 1.50 |
| 1987             | 20.6                          | 27.3  | 20.6  | 8.69    | 8.23 | 7.93 | 6.57        | 1.49 | 1.49 | 1.49    | 1.49 | 1.49 | 1.49        | 1.49 | 1.49 |
| 1987             | 100.0                         | 0.0   | 100.0 | 8.69    | 8.23 | 7.93 | 6.57        | 1.57 | 1.57 | 1.57    | 1.57 | 1.57 | 1.57        | 1.57 | 1.57 |
| 1990             | 0.0                           | 0.0   | 0.0   | 6.59    | 6.19 | 5.94 | 4.60        | 1.14 | 1.14 | 1.14    | 1.14 | 1.14 | 1.14        | 1.14 | 1.14 |
| 1990             | 0.0                           | 27.3  | 0.0   | 6.59    | 6.19 | 5.94 | 4.60        | 1.14 | 1.14 | 1.14    | 1.14 | 1.14 | 1.14        | 1.14 | 1.14 |
| 1990             | 0.0                           | 100.0 | 0.0   | 6.59    | 6.19 | 5.94 | 4.60        | 1.13 | 1.13 | 1.13    | 1.13 | 1.13 | 1.13        | 1.13 | 1.13 |
| 1990             | 20.6                          | 0.0   | 20.6  | 6.59    | 6.19 | 5.94 | 4.60        | 1.16 | 1.16 | 1.16    | 1.16 | 1.16 | 1.16        | 1.16 | 1.16 |
| 1990             | 20.6                          | 27.3  | 20.6  | 6.59    | 6.19 | 5.94 | 4.60        | 1.15 | 1.15 | 1.15    | 1.15 | 1.15 | 1.15        | 1.15 | 1.15 |
| 1990             | 100.0                         | 0.0   | 100.0 | 6.59    | 6.19 | 5.94 | 4.60        | 1.21 | 1.21 | 1.21    | 1.21 | 1.21 | 1.21        | 1.21 | 1.21 |
| 1995             | 0.0                           | 0.0   | 0.0   | 4.83    | 4.57 | 4.41 | 3.15        | 1.02 | 1.02 | 1.02    | 1.02 | 1.02 | 1.02        | 1.02 | 1.02 |
| 1995             | 0.0                           | 27.3  | 0.0   | 4.83    | 4.57 | 4.41 | 3.15        | 1.02 | 1.02 | 1.02    | 1.02 | 1.02 | 1.02        | 1.02 | 1.02 |
| 1995             | 0.0                           | 100.0 | 0.0   | 4.83    | 4.57 | 4.41 | 3.15        | 1.01 | 1.01 | 1.01    | 1.01 | 1.01 | 1.01        | 1.01 | 1.01 |
| 1995             | 20.6                          | 0.0   | 20.6  | 4.83    | 4.57 | 4.41 | 3.15        | 1.04 | 1.04 | 1.04    | 1.04 | 1.04 | 1.04        | 1.04 | 1.04 |
| 1995             | 20.6                          | 27.3  | 20.6  | 4.83    | 4.57 | 4.41 | 3.15        | 1.03 | 1.03 | 1.03    | 1.03 | 1.03 | 1.03        | 1.03 | 1.03 |
| 1995             | 100.0                         | 0.0   | 100.0 | 4.83    | 4.57 | 4.41 | 3.15        | 1.08 | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |

TABLE 15 (Continued)  
 SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------|------|
|                  | PCCN                          | PCNC  | PCCC  | AMBIENT<br>25F                                                  | 50F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.54                                                            | 4.88 | 4.53 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.17                                                            | 5.45 | 4.83 |
| 1975             | 0.0                           | 100.0 | 0.0   | 7.00                                                            | 6.95 | 6.16 |
| 1975             | 20.6                          | 0.0   | 20.6  | 5.53                                                            | 5.01 | 4.57 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.17                                                            | 5.57 | 4.77 |
| 1975             | 100.0                         | 0.0   | 100.0 | 5.51                                                            | 5.49 | 5.50 |
| 1980             | 0.0                           | 0.0   | 0.0   | 4.17                                                            | 3.81 | 3.50 |
| 1980             | 0.0                           | 27.3  | 0.0   | 4.62                                                            | 4.23 | 3.88 |
| 1980             | 0.0                           | 100.0 | 0.0   | 5.83                                                            | 5.34 | 4.91 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.36                                                            | 4.04 | 3.76 |
| 1980             | 20.6                          | 27.3  | 20.6  | 4.82                                                            | 4.45 | 4.14 |
| 1980             | 100.0                         | 0.0   | 100.0 | 5.12                                                            | 4.90 | 4.74 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.73                                                            | 3.43 | 3.17 |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.11                                                            | 3.78 | 3.50 |
| 1982             | 0.0                           | 100.0 | 0.0   | 5.12                                                            | 4.71 | 4.36 |
| 1982             | 20.6                          | 0.0   | 20.6  | 3.96                                                            | 3.67 | 3.41 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.34                                                            | 4.02 | 3.74 |
| 1982             | 100.0                         | 0.0   | 100.0 | 4.86                                                            | 4.57 | 4.34 |
| 1975             |                               |       |       |                                                                 |      |      |
| 1975             |                               |       |       |                                                                 |      |      |
| 1975             |                               |       |       |                                                                 |      |      |
| 1975             |                               |       |       |                                                                 |      |      |
| 1975             |                               |       |       |                                                                 |      |      |
| 1975             |                               |       |       |                                                                 |      |      |
| 1980             |                               |       |       |                                                                 |      |      |
| 1980             |                               |       |       |                                                                 |      |      |
| 1980             |                               |       |       |                                                                 |      |      |
| 1980             |                               |       |       |                                                                 |      |      |
| 1980             |                               |       |       |                                                                 |      |      |
| 1980             |                               |       |       |                                                                 |      |      |
| 1982             |                               |       |       |                                                                 |      |      |
| 1982             |                               |       |       |                                                                 |      |      |
| 1982             |                               |       |       |                                                                 |      |      |
| 1982             |                               |       |       |                                                                 |      |      |
| 1982             |                               |       |       |                                                                 |      |      |
| 1982             |                               |       |       |                                                                 |      |      |

TABLE IS (Continued)  
 SENSITIVITY OF THE MOREL? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 19.6.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF   | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |      |      |      |
|------------------|-------------------------------|-------|-------|------|-----------------------------------------------------------------|------|------|------|
|                  | PCH                           | PHC   | PECC  |      | AMBIENT<br>25F                                                  | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.59 | 2.43                                                            | 2.30 | 2.22 | 1.85 |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.89 | 2.71                                                            | 2.55 | 2.45 | 2.02 |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.69 | 3.44                                                            | 3.21 | 3.07 | 2.49 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.78 | 2.62                                                            | 2.49 | 2.41 | 1.97 |
| 1987             | 20.6                          | 27.3  | 20.6  | 3.09 | 2.90                                                            | 2.74 | 2.64 | 2.15 |
| 1987             | 100.0                         | 0.0   | 100.0 | 3.54 | 3.36                                                            | 3.22 | 3.14 | 2.46 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.00 | 1.92                                                            | 1.86 | 1.82 | 1.43 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.30 | 2.19                                                            | 2.10 | 2.04 | 1.59 |
| 1990             | 0.0                           | 100.0 | 0.0   | 3.11 | 2.91                                                            | 2.74 | 2.62 | 2.03 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.16 | 2.09                                                            | 2.02 | 1.99 | 1.54 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.47 | 2.36                                                            | 2.26 | 2.21 | 1.70 |
| 1990             | 100.0                         | 0.0   | 100.0 | 2.79 | 2.72                                                            | 2.67 | 2.64 | 1.97 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.55 | 1.54                                                            | 1.53 | 1.52 | 1.14 |
| 1995             | 0.0                           | 27.3  | 0.0   | 1.85 | 1.80                                                            | 1.76 | 1.74 | 1.30 |
| 1995             | 0.0                           | 100.0 | 0.0   | 2.65 | 2.51                                                            | 2.38 | 2.30 | 1.72 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.68 | 1.68                                                            | 1.68 | 1.68 | 1.24 |
| 1995             | 20.6                          | 27.3  | 20.6  | 1.99 | 1.95                                                            | 1.91 | 1.89 | 1.40 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.20 | 2.23                                                            | 2.26 | 2.29 | 1.64 |

TABLE 16  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
MOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 15.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | AMBIENT |     | TEMPERATURE |      |
|------------------|-------------------------------|-------|-------|---------|------|-------------|------|---------|------|-------------|------|---------|-----|-------------|------|
|                  | PCCH                          | PCNC  | PCCC  | OF      | 25F  | 50F         | 75F  | OF      | 25F  | 50F         | 75F  | OF      | 25F | 50F         | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.10    | 4.37 | 3.75        | 3.38 | 2.94    | 4.96 | 4.31        | 3.92 | 100F    |     |             | 100F |
| 1975             | 0.0                           | 27.3  | 0.0   | 5.89    | 5.07 | 4.37        | 3.94 | 3.43    | 5.76 | 5.03        | 4.58 |         |     |             | 3.45 |
| 1975             | 0.0                           | 100.0 | 0.0   | 6.00    | 6.93 | 6.01        | 5.45 | 4.65    | 7.90 | 6.93        | 6.23 |         |     |             | 3.97 |
| 1975             | 20.6                          | 0.0   | 20.6  | 5.09    | 4.52 | 4.05        | 3.76 | 3.40    | 5.15 | 4.66        | 4.37 |         |     |             | 5.26 |
| 1975             | 20.6                          | 27.3  | 20.6  | 5.84    | 5.22 | 4.66        | 4.33 | 3.86    | 5.95 | 5.38        | 5.03 |         |     |             | 3.91 |
| 1975             | 100.0                         | 0.0   | 100.0 | 5.05    | 5.11 | 5.18        | 5.24 | 5.02    | 5.84 | 6.01        | 6.12 |         |     |             | 4.44 |
|                  |                               |       |       |         |      |             |      |         |      |             |      |         |     |             | 5.72 |
| 1980             | 0.0                           | 0.0   | 0.0   | 3.72    | 3.28 | 2.90        | 2.67 | 2.28    | 3.66 | 3.30        | 3.08 |         |     |             | 2.65 |
| 1980             | 0.0                           | 27.3  | 0.0   | 4.32    | 3.83 | 3.40        | 3.14 | 2.66    | 4.26 | 3.87        | 3.62 |         |     |             | 3.07 |
| 1980             | 0.0                           | 100.0 | 0.0   | 5.91    | 5.29 | 4.75        | 4.41 | 3.68    | 5.86 | 5.37        | 5.06 |         |     |             | 4.21 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.00    | 3.59 | 3.24        | 3.03 | 2.59    | 4.01 | 3.70        | 3.51 |         |     |             | 3.01 |
| 1980             | 20.6                          | 27.3  | 20.6  | 4.59    | 4.13 | 3.74        | 3.51 | 2.94    | 4.61 | 4.26        | 4.05 |         |     |             | 3.44 |
| 1980             | 100.0                         | 0.0   | 100.0 | 5.05    | 4.77 | 4.55        | 4.43 | 3.81    | 5.33 | 5.23        | 5.19 |         |     |             | 4.42 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.21    | 2.83 | 2.51        | 2.31 | 1.91    | 3.33 | 2.95        | 2.72 |         |     |             | 2.28 |
| 1982             | 0.0                           | 27.3  | 0.0   | 3.72    | 3.31 | 2.95        | 2.73 | 2.24    | 3.85 | 3.44        | 3.19 |         |     |             | 2.65 |
| 1982             | 0.0                           | 100.0 | 0.0   | 5.08    | 4.56 | 4.11        | 3.83 | 3.11    | 5.23 | 4.74        | 4.43 |         |     |             | 3.63 |
| 1982             | 20.6                          | 0.0   | 20.6  | 3.53    | 3.16 | 2.84        | 2.65 | 2.17    | 3.73 | 3.34        | 3.11 |         |     |             | 2.59 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.04    | 3.62 | 3.27        | 3.06 | 2.50    | 4.24 | 3.83        | 3.58 |         |     |             | 2.96 |
| 1982             | 100.0                         | 0.0   | 100.0 | 4.75    | 4.38 | 4.09        | 3.93 | 3.14    | 5.24 | 4.85        | 4.63 |         |     |             | 3.79 |

Table 16 (Continued)  
 SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      | **LDGT** |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|------|---------|------|------|-------------|------|------|----------|------|------|
|                  | PCCM                          | PCHC  | PCCC  | 0F      | 25F  | 50F  | 75F         | 100F | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F      | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.20    | 2.02 | 1.87 | 1.78        | 1.29 | 2.48 | 2.20    | 1.95 | 1.80 | 1.41        | 2.48 | 2.20 | 1.95     | 1.80 | 1.41 |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.67    | 2.44 | 2.25 | 2.13        | 1.55 | 2.86 | 2.55    | 2.28 | 2.11 | 1.65        | 2.86 | 2.55 | 2.28     | 2.11 | 1.65 |
| 1987             | 0.0                           | 100.0 | 0.0   | 3.90    | 3.56 | 3.26 | 3.07        | 2.26 | 3.88 | 3.49    | 3.15 | 2.94 | 2.28        | 3.88 | 3.49 | 3.15     | 2.94 | 2.28 |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.50    | 2.31 | 2.15 | 2.06        | 1.47 | 2.81 | 2.50    | 2.23 | 2.08 | 1.60        | 2.81 | 2.50 | 2.23     | 2.08 | 1.60 |
| 1987             | 20.6                          | 27.3  | 20.6  | 2.96    | 2.73 | 2.53 | 2.42        | 1.74 | 3.19 | 2.85    | 2.56 | 2.39 | 1.84        | 3.19 | 2.85 | 2.56     | 2.39 | 1.84 |
| 1987             | 100.0                         | 0.0   | 100.0 | 3.62    | 3.40 | 3.24 | 3.15        | 2.10 | 4.07 | 3.66    | 3.33 | 3.14 | 2.33        | 4.07 | 3.66 | 3.33     | 3.14 | 2.33 |
| 1990             | 0.0                           | 0.0   | 0.0   | 1.86    | 1.70 | 1.71 | 1.67        | 1.11 | 1.74 | 1.59    | 1.46 | 1.38 | 1.01        | 1.74 | 1.59 | 1.46     | 1.38 | 1.01 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.86    | 2.23 | 2.11 | 2.03        | 1.39 | 2.07 | 1.89    | 1.73 | 1.63 | 1.21        | 2.07 | 1.89 | 1.73     | 1.63 | 1.21 |
| 1990             | 0.0                           | 100.0 | 0.0   | 3.71    | 3.42 | 3.17 | 3.00        | 2.11 | 2.96 | 2.70    | 2.47 | 2.32 | 1.73        | 2.96 | 2.70 | 2.47     | 2.32 | 1.73 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.12    | 2.04 | 1.98 | 1.94        | 1.29 | 1.99 | 1.83    | 1.69 | 1.61 | 1.17        | 1.99 | 1.83 | 1.69     | 1.61 | 1.17 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.62    | 2.49 | 2.38 | 2.31        | 1.56 | 2.32 | 2.13    | 1.96 | 1.86 | 1.36        | 2.32 | 2.13 | 1.96     | 1.86 | 1.36 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.12    | 3.05 | 3.01 | 3.00        | 1.97 | 2.95 | 2.74    | 2.58 | 2.49 | 1.75        | 2.95 | 2.74 | 2.58     | 2.49 | 1.75 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.56    | 1.57 | 1.58 | 1.59        | 0.99 | 1.18 | 1.13    | 1.09 | 1.07 | 0.71        | 1.18 | 1.13 | 1.09     | 1.07 | 0.71 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.10    | 2.05 | 2.00 | 1.97        | 1.28 | 1.49 | 1.41    | 1.33 | 1.29 | 0.88        | 1.49 | 1.41 | 1.33     | 1.29 | 0.88 |
| 1995             | 0.0                           | 100.0 | 0.0   | 3.55    | 3.34 | 3.13 | 2.99        | 2.04 | 2.31 | 2.14    | 1.98 | 1.88 | 1.32        | 2.31 | 2.14 | 1.98     | 1.88 | 1.32 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.79    | 1.81 | 1.84 | 1.86        | 1.17 | 1.37 | 1.32    | 1.28 | 1.26 | 0.83        | 1.37 | 1.32 | 1.28     | 1.26 | 0.83 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.33    | 2.30 | 2.26 | 2.25        | 1.46 | 1.68 | 1.60    | 1.53 | 1.48 | 1.00        | 1.68 | 1.60 | 1.53     | 1.48 | 1.00 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.68    | 2.74 | 2.85 | 2.92        | 1.85 | 2.10 | 2.05    | 2.03 | 2.02 | 1.32        | 2.10 | 2.05 | 2.03     | 2.02 | 1.32 |

TABLE 16 (Continued)  
 SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      | SPED. |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|-------|------|---------|------|------|-------------|------|------|-------|------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F      | 25F   | 50F   | 75F         | 100F  | 0F   | 25F     | 50F  | 75F  | 100F        | 0F   | 25F  | 50F   | 75F  | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.51 | 1.51    | 1.51 | 1.51 | 1.51        | 1.51 | 1.51 | 1.51  | 1.51 | 1.51 |
| 1975             | 0.0                           | 27.3  | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.51 | 1.51    | 1.51 | 1.51 | 1.51        | 1.51 | 1.51 | 1.51  | 1.51 | 1.51 |
| 1975             | 0.0                           | 100.0 | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.52 | 1.52    | 1.52 | 1.52 | 1.52        | 1.52 | 1.52 | 1.52  | 1.52 | 1.52 |
| 1975             | 20.6                          | 0.0   | 20.6  | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.54 | 1.54    | 1.54 | 1.54 | 1.54        | 1.54 | 1.54 | 1.54  | 1.54 | 1.54 |
| 1975             | 20.6                          | 27.3  | 20.6  | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.54 | 1.54    | 1.54 | 1.54 | 1.54        | 1.54 | 1.54 | 1.54  | 1.54 | 1.54 |
| 1975             | 100.0                         | 0.0   | 100.0 | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.64 | 1.64    | 1.64 | 1.64 | 1.64        | 1.64 | 1.64 | 1.64  | 1.64 | 1.64 |
| 1980             | 0.0                           | 0.0   | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.36 | 1.36    | 1.36 | 1.36 | 1.36        | 1.36 | 1.36 | 1.36  | 1.36 | 1.36 |
| 1980             | 0.0                           | 27.3  | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.36 | 1.36    | 1.36 | 1.36 | 1.36        | 1.36 | 1.36 | 1.36  | 1.36 | 1.36 |
| 1980             | 0.0                           | 100.0 | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.36 | 1.36    | 1.36 | 1.36 | 1.36        | 1.36 | 1.36 | 1.36  | 1.36 | 1.36 |
| 1980             | 20.6                          | 0.0   | 20.6  | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.38 | 1.38    | 1.38 | 1.38 | 1.38        | 1.38 | 1.38 | 1.38  | 1.38 | 1.38 |
| 1980             | 20.6                          | 27.3  | 20.6  | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.38 | 1.38    | 1.38 | 1.38 | 1.38        | 1.38 | 1.38 | 1.38  | 1.38 | 1.38 |
| 1980             | 100.0                         | 0.0   | 100.0 | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.47 | 1.47    | 1.47 | 1.47 | 1.47        | 1.47 | 1.47 | 1.47  | 1.47 | 1.47 |
| 1982             | 0.0                           | 0.0   | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.22 | 1.22    | 1.22 | 1.22 | 1.22        | 1.22 | 1.22 | 1.22  | 1.22 | 1.22 |
| 1982             | 0.0                           | 27.3  | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.22 | 1.22    | 1.22 | 1.22 | 1.22        | 1.22 | 1.22 | 1.22  | 1.22 | 1.22 |
| 1982             | 0.0                           | 100.0 | 0.0   | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.22 | 1.22    | 1.22 | 1.22 | 1.22        | 1.22 | 1.22 | 1.22  | 1.22 | 1.22 |
| 1982             | 20.6                          | 0.0   | 20.6  | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.24 | 1.24    | 1.24 | 1.24 | 1.24        | 1.24 | 1.24 | 1.24  | 1.24 | 1.24 |
| 1982             | 20.6                          | 27.3  | 20.6  | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.24 | 1.24    | 1.24 | 1.24 | 1.24        | 1.24 | 1.24 | 1.24  | 1.24 | 1.24 |
| 1982             | 100.0                         | 0.0   | 100.0 | 22.3A   | 22.3A | 22.3A | 22.3A       | 22.3A | 1.32 | 1.32    | 1.32 | 1.32 | 1.32        | 1.32 | 1.32 | 1.32  | 1.32 | 1.32 |

TABLE 16 (Continued)  
SENSITIVITY OF THE MORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOV EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV** |                |       | TEMPERATURE |       |      | **LODV**       |      |      | TEMPERATURE |  |
|------------------|-------------------------------|-------|-------|----------|----------------|-------|-------------|-------|------|----------------|------|------|-------------|--|
|                  | PCCH                          | PCMC  | PCCC  | 0F       | AMBIENT<br>25F | 50F   | 75F         | 100F  | 0F   | AMBIENT<br>25F | 50F  | 75F  | 100F        |  |
| 1987             | 0.0                           | 0.0   | 0.0   | 16.46    | 16.46          | 16.46 | 16.46       | 16.46 | 0.92 | 0.92           | 0.92 | 0.92 | 100F        |  |
| 1987             | 0.0                           | 27.3  | 0.0   | 16.46    | 16.46          | 16.46 | 16.46       | 16.46 | 0.92 | 0.92           | 0.92 | 0.92 | 0.92        |  |
| 1987             | 0.0                           | 100.0 | 0.0   | 16.46    | 16.46          | 16.46 | 16.46       | 16.46 | 0.91 | 0.91           | 0.91 | 0.92 | 0.92        |  |
| 1987             | 20.6                          | 0.0   | 20.6  | 16.46    | 16.46          | 16.46 | 16.46       | 16.46 | 0.93 | 0.93           | 0.93 | 0.91 | 0.91        |  |
| 1987             | 20.6                          | 27.3  | 20.6  | 16.46    | 16.46          | 16.46 | 16.46       | 16.46 | 0.93 | 0.93           | 0.93 | 0.93 | 0.93        |  |
| 1987             | 100.0                         | 0.0   | 100.0 | 16.46    | 16.46          | 16.46 | 16.46       | 16.46 | 0.98 | 0.98           | 0.98 | 0.93 | 0.93        |  |
|                  |                               |       |       |          |                |       |             |       |      |                |      |      | 0.98        |  |
| 1990             | 0.0                           | 0.0   | 0.0   | 11.30    | 11.30          | 11.30 | 11.30       | 11.30 | 0.87 | 0.87           | 0.87 | 0.87 | 0.87        |  |
| 1990             | 0.0                           | 27.3  | 0.0   | 11.30    | 11.30          | 11.30 | 11.30       | 11.30 | 0.87 | 0.87           | 0.87 | 0.87 | 0.87        |  |
| 1990             | 0.0                           | 100.0 | 0.0   | 11.30    | 11.30          | 11.30 | 11.30       | 11.30 | 0.86 | 0.86           | 0.86 | 0.86 | 0.86        |  |
| 1990             | 20.6                          | 0.0   | 20.6  | 11.30    | 11.30          | 11.30 | 11.30       | 11.30 | 0.88 | 0.88           | 0.88 | 0.86 | 0.86        |  |
| 1990             | 20.6                          | 27.3  | 20.6  | 11.30    | 11.30          | 11.30 | 11.30       | 11.30 | 0.88 | 0.88           | 0.88 | 0.88 | 0.88        |  |
| 1990             | 100.0                         | 0.0   | 100.0 | 11.30    | 11.30          | 11.30 | 11.30       | 11.30 | 0.88 | 0.88           | 0.88 | 0.88 | 0.88        |  |
|                  |                               |       |       |          |                |       |             |       |      |                |      |      | 0.93        |  |
| 1995             | 0.0                           | 0.0   | 0.0   | 7.52     | 7.52           | 7.52  | 7.52        | 7.52  | 0.89 | 0.89           | 0.89 | 0.93 | 0.93        |  |
| 1995             | 0.0                           | 27.3  | 0.0   | 7.52     | 7.52           | 7.52  | 7.52        | 7.52  | 0.89 | 0.89           | 0.89 | 0.89 | 0.89        |  |
| 1995             | 0.0                           | 100.0 | 0.0   | 7.52     | 7.52           | 7.52  | 7.52        | 7.52  | 0.89 | 0.89           | 0.89 | 0.89 | 0.89        |  |
| 1995             | 20.6                          | 0.0   | 20.6  | 7.52     | 7.52           | 7.52  | 7.52        | 7.52  | 0.88 | 0.88           | 0.88 | 0.89 | 0.89        |  |
| 1995             | 20.6                          | 27.3  | 20.6  | 7.52     | 7.52           | 7.52  | 7.52        | 7.52  | 0.90 | 0.90           | 0.90 | 0.88 | 0.88        |  |
| 1995             | 100.0                         | 0.0   | 100.0 | 7.52     | 7.52           | 7.52  | 7.52        | 7.52  | 0.90 | 0.90           | 0.90 | 0.90 | 0.90        |  |
|                  |                               |       |       |          |                |       |             |       |      |                |      |      | 0.94        |  |
|                  |                               |       |       |          |                |       |             |       |      |                |      |      | 0.94        |  |



SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |           | AMBIENT<br>25F | **HOCV** |       | TEMPERATURE<br>75F | 100F  | 0F    | AMBIENT<br>25F | **LODT** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-----------|----------------|----------|-------|--------------------|-------|-------|----------------|----------|------|--------------------|------|
|                  | PCCH                          | PCHC PCCC |                | 50F      | 75F   |                    |       |       |                | 50F      | 75F  |                    |      |
| 1975             | 0.0                           | 0.0       | 0.0            | 16.34    | 14.36 | 12.64              | 11.57 | 10.07 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 27.3      | 0.0            | 16.34    | 14.36 | 12.64              | 11.57 | 10.07 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 0.0                           | 100.0     | 0.0            | 16.34    | 14.36 | 12.64              | 11.57 | 10.07 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 0.0       | 20.6           | 16.34    | 14.36 | 12.64              | 11.57 | 10.07 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 20.6                          | 27.3      | 20.6           | 16.34    | 14.36 | 12.64              | 11.57 | 10.07 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1975             | 100.0                         | 0.0       | 100.0          | 16.34    | 14.36 | 12.64              | 11.57 | 10.07 | 0.0            | 0.0      | 0.0  | 0.0                | 0.0  |
| 1980             | 0.0                           | 0.0       | 0.0            | 13.40    | 12.56 | 11.81              | 11.32 | 9.44  | 1.59           | 1.59     | 1.59 | 1.59               | 1.59 |
| 1980             | 0.0                           | 27.3      | 0.0            | 13.40    | 12.56 | 11.81              | 11.32 | 9.44  | 1.59           | 1.59     | 1.59 | 1.59               | 1.59 |
| 1980             | 0.0                           | 100.0     | 0.0            | 13.40    | 12.56 | 11.81              | 11.32 | 9.44  | 1.59           | 1.59     | 1.59 | 1.59               | 1.59 |
| 1980             | 20.6                          | 0.0       | 20.6           | 13.40    | 12.56 | 11.81              | 11.32 | 9.44  | 1.62           | 1.62     | 1.62 | 1.62               | 1.62 |
| 1980             | 20.6                          | 27.3      | 20.6           | 13.40    | 12.56 | 11.81              | 11.32 | 9.44  | 1.62           | 1.62     | 1.62 | 1.62               | 1.62 |
| 1980             | 100.0                         | 0.0       | 100.0          | 13.40    | 12.56 | 11.81              | 11.32 | 9.44  | 1.72           | 1.72     | 1.72 | 1.72               | 1.72 |
| 1982             | 0.0                           | 0.0       | 0.0            | 12.83    | 12.23 | 11.69              | 11.34 | 9.70  | 1.70           | 1.70     | 1.70 | 1.70               | 1.70 |
| 1982             | 0.0                           | 27.3      | 0.0            | 12.83    | 12.23 | 11.69              | 11.34 | 9.70  | 1.70           | 1.70     | 1.70 | 1.70               | 1.70 |
| 1982             | 0.0                           | 100.0     | 0.0            | 12.83    | 12.23 | 11.69              | 11.34 | 9.70  | 1.70           | 1.70     | 1.70 | 1.70               | 1.70 |
| 1982             | 20.6                          | 0.0       | 20.6           | 12.83    | 12.23 | 11.69              | 11.34 | 9.70  | 1.73           | 1.73     | 1.73 | 1.73               | 1.73 |
| 1982             | 20.6                          | 27.3      | 20.6           | 12.83    | 12.23 | 11.69              | 11.34 | 9.70  | 1.73           | 1.73     | 1.73 | 1.73               | 1.73 |
| 1982             | 100.0                         | 0.0       | 100.0          | 12.83    | 12.23 | 11.69              | 11.34 | 9.70  | 1.84           | 1.84     | 1.84 | 1.84               | 1.84 |

TABLE 16 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HNOGV** |      |      | **LDDT** |      |      | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|-------|-----------|------|------|----------|------|------|--------------------|------|------|----------------|------|--------------------|------|
|                  | PCCH                          | PCMC  | PCCC  | 0F        | 25F  | 50F  | 75F      | 100F | 0F   |                    |      |      |                |      |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0   | 10.47     | 9.88 | 9.35 | 9.01     | 7.46 | 1.28 | 1.28               | 1.28 | 1.28 | 1.28           | 1.28 | 1.28               | 1.28 |
| 1987             | 0.0                           | 27.3  | 0.0   | 10.47     | 9.88 | 9.35 | 9.01     | 7.46 | 1.28 | 1.28               | 1.28 | 1.28 | 1.28           | 1.28 | 1.28               | 1.28 |
| 1987             | 0.0                           | 100.0 | 0.0   | 10.47     | 9.88 | 9.35 | 9.01     | 7.46 | 1.27 | 1.27               | 1.27 | 1.27 | 1.27           | 1.27 | 1.27               | 1.27 |
| 1987             | 20.6                          | 0.0   | 20.6  | 10.47     | 9.88 | 9.35 | 9.01     | 7.46 | 1.30 | 1.30               | 1.30 | 1.30 | 1.30           | 1.30 | 1.30               | 1.30 |
| 1987             | 20.6                          | 27.3  | 20.6  | 10.47     | 9.88 | 9.35 | 9.01     | 7.46 | 1.29 | 1.29               | 1.29 | 1.29 | 1.29           | 1.29 | 1.29               | 1.29 |
| 1987             | 100.0                         | 0.0   | 100.0 | 10.47     | 9.88 | 9.35 | 9.01     | 7.46 | 1.37 | 1.37               | 1.37 | 1.37 | 1.37           | 1.37 | 1.37               | 1.37 |
| 1990             | 0.0                           | 0.0   | 0.0   | 7.98      | 7.49 | 7.04 | 6.75     | 5.23 | 0.99 | 0.99               | 0.99 | 0.99 | 0.99           | 0.99 | 0.99               | 0.99 |
| 1990             | 0.0                           | 27.3  | 0.0   | 7.98      | 7.49 | 7.04 | 6.75     | 5.23 | 0.99 | 0.99               | 0.99 | 0.99 | 0.99           | 0.99 | 0.99               | 0.99 |
| 1990             | 0.0                           | 100.0 | 0.0   | 7.98      | 7.49 | 7.04 | 6.75     | 5.23 | 0.98 | 0.98               | 0.98 | 0.98 | 0.98           | 0.98 | 0.98               | 0.98 |
| 1990             | 20.6                          | 0.0   | 20.6  | 7.98      | 7.49 | 7.04 | 6.75     | 5.23 | 1.00 | 1.00               | 1.00 | 1.00 | 1.00           | 1.00 | 1.00               | 1.00 |
| 1990             | 20.6                          | 27.3  | 20.6  | 7.98      | 7.49 | 7.04 | 6.75     | 5.23 | 1.00 | 1.00               | 1.00 | 1.00 | 1.00           | 1.00 | 1.00               | 1.00 |
| 1990             | 100.0                         | 0.0   | 100.0 | 7.98      | 7.49 | 7.04 | 6.75     | 5.23 | 1.05 | 1.05               | 1.05 | 1.05 | 1.05           | 1.05 | 1.05               | 1.05 |
| 1995             | 0.0                           | 0.0   | 0.0   | 5.79      | 5.48 | 5.20 | 5.01     | 3.58 | 0.89 | 0.89               | 0.89 | 0.89 | 0.89           | 0.89 | 0.89               | 0.89 |
| 1995             | 0.0                           | 27.3  | 0.0   | 5.79      | 5.48 | 5.20 | 5.01     | 3.58 | 0.88 | 0.88               | 0.88 | 0.88 | 0.88           | 0.88 | 0.88               | 0.88 |
| 1995             | 0.0                           | 100.0 | 0.0   | 5.79      | 5.48 | 5.20 | 5.01     | 3.58 | 0.88 | 0.88               | 0.88 | 0.88 | 0.88           | 0.88 | 0.88               | 0.88 |
| 1995             | 20.6                          | 0.0   | 20.6  | 5.79      | 5.48 | 5.20 | 5.01     | 3.58 | 0.90 | 0.90               | 0.90 | 0.90 | 0.90           | 0.90 | 0.90               | 0.90 |
| 1995             | 20.6                          | 27.3  | 20.6  | 5.79      | 5.48 | 5.20 | 5.01     | 3.58 | 0.89 | 0.89               | 0.89 | 0.89 | 0.89           | 0.89 | 0.89               | 0.89 |
| 1995             | 100.0                         | 0.0   | 100.0 | 5.79      | 5.48 | 5.20 | 5.01     | 3.58 | 0.94 | 0.94               | 0.94 | 0.94 | 0.94           | 0.94 | 0.94               | 0.94 |

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|------|------|
|                  | PCCN                          | PCHC  | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.1A                                                            | 5.42           | 4.7A | 4.39 | 3.95 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.92                                                            | 6.08           | 5.36 | 4.92 | 4.38 |
| 1975             | 0.0                           | 100.0 | 0.0   | 8.89                                                            | 7.82           | 6.90 | 6.33 | 5.52 |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.17                                                            | 5.57           | 5.06 | 4.75 | 4.34 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.91                                                            | 6.22           | 5.64 | 5.28 | 4.77 |
| 1975             | 100.0                         | 0.0   | 100.0 | 6.15                                                            | 6.13           | 6.13 | 6.14 | 5.86 |
| 1980             | 0.0                           | 0.0   | 0.0   | 4.75                                                            | 4.31           | 3.94 | 3.71 | 3.27 |
| 1980             | 0.0                           | 27.3  | 0.0   | 5.30                                                            | 4.82           | 4.41 | 4.15 | 3.62 |
| 1980             | 0.0                           | 100.0 | 0.0   | 6.76                                                            | 6.17           | 5.65 | 5.33 | 4.57 |
| 1980             | 20.6                          | 0.0   | 20.6  | 5.00                                                            | 4.60           | 4.26 | 4.05 | 3.56 |
| 1980             | 20.6                          | 27.3  | 20.6  | 5.55                                                            | 5.10           | 4.72 | 4.49 | 3.92 |
| 1980             | 100.0                         | 0.0   | 100.0 | 5.97                                                            | 5.69           | 5.47 | 5.36 | 4.69 |
| 1982             | 0.0                           | 0.0   | 0.0   | 4.27                                                            | 3.90           | 3.58 | 3.38 | 2.94 |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.74                                                            | 4.33           | 3.98 | 3.76 | 3.24 |
| 1982             | 0.0                           | 100.0 | 0.0   | 5.98                                                            | 5.48           | 5.04 | 4.77 | 4.04 |
| 1982             | 20.6                          | 0.0   | 20.6  | 4.57                                                            | 4.19           | 3.88 | 3.69 | 3.18 |
| 1982             | 20.6                          | 27.3  | 20.6  | 5.03                                                            | 4.63           | 4.28 | 4.07 | 3.48 |
| 1982             | 100.0                         | 0.0   | 100.0 | 5.71                                                            | 5.34           | 5.04 | 4.87 | 4.12 |

SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 35.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|------|------|
|                  | PCCN                          | PCMC  | PCCC  | OF                                                              | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.97                                                            | 2.77           | 2.61 | 2.51 | 2.04 |
| 1987             | 0.0                           | 27.3  | 0.0   | 3.35                                                            | 3.13           | 2.93 | 2.81 | 2.26 |
| 1987             | 0.0                           | 100.0 | 0.0   | 4.34                                                            | 4.06           | 3.77 | 3.59 | 2.86 |
| 1987             | 20.6                          | 0.0   | 20.6  | 3.22                                                            | 3.02           | 2.85 | 2.75 | 2.20 |
| 1987             | 20.6                          | 27.3  | 20.6  | 3.61                                                            | 3.37           | 3.17 | 3.05 | 2.42 |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.20                                                            | 3.97           | 3.78 | 3.68 | 2.82 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.31                                                            | 2.21           | 2.13 | 2.08 | 1.58 |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.70                                                            | 2.56           | 2.44 | 2.36 | 1.80 |
| 1990             | 0.0                           | 100.0 | 0.0   | 3.74                                                            | 3.49           | 3.26 | 3.12 | 2.36 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.52                                                            | 2.42           | 2.34 | 2.30 | 1.73 |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.91                                                            | 2.77           | 2.65 | 2.58 | 1.94 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.33                                                            | 3.23           | 3.17 | 3.14 | 2.28 |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.78                                                            | 1.77           | 1.76 | 1.75 | 1.27 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.17                                                            | 2.11           | 2.06 | 2.03 | 1.47 |
| 1995             | 0.0                           | 100.0 | 0.0   | 3.21                                                            | 3.03           | 2.87 | 2.76 | 2.02 |
| 1995             | 20.6                          | 0.0   | 20.6  | 1.96                                                            | 1.95           | 1.95 | 1.95 | 1.40 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.35                                                            | 2.30           | 2.25 | 2.23 | 1.60 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.62                                                            | 2.66           | 2.70 | 2.74 | 1.90 |

TABLE 17  
SENSITIVITY OF THE HORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **LOGV** |                |      | TEMPERATURE |      |      | **LOGT**       |      |      | TEMPERATURE |      |                |      |      |
|------------------|-------------------------------|-------|-------|----------|----------------|------|-------------|------|------|----------------|------|------|-------------|------|----------------|------|------|
|                  | PCCH                          | PCNC  | PCCC  | 0F       | AMBIENT<br>25F | 50F  | 75F         | 100F | 0F   | AMBIENT<br>25F | 50F  | 75F  | 100F        | 0F   | AMBIENT<br>25F | 50F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.56     | 4.76           | 4.09 | 3.69        | 3.25 | 6.22 | 5.40           | 4.70 | 4.27 | 3.75        | 6.22 | 5.40           | 4.70 | 4.27 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.43     | 5.53           | 4.77 | 4.30        | 3.75 | 7.21 | 6.27           | 5.42 | 4.99 | 4.32        | 7.21 | 6.27           | 5.42 | 4.99 |
| 1975             | 0.0                           | 100.0 | 0.0   | 8.73     | 7.56           | 6.56 | 5.95        | 5.08 | 9.62 | 8.60           | 7.55 | 6.90 | 5.84        | 9.62 | 8.60           | 7.55 | 6.90 |
| 1975             | 20.6                          | 0.0   | 20.6  | 5.55     | 4.93           | 4.41 | 4.10        | 3.71 | 6.23 | 5.60           | 5.08 | 4.77 | 4.26        | 6.23 | 5.60           | 5.08 | 4.77 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.42     | 5.69           | 5.09 | 4.72        | 4.21 | 7.21 | 6.48           | 5.86 | 5.48 | 4.83        | 7.21 | 6.48           | 5.86 | 5.48 |
| 1975             | 100.0                         | 0.0   | 100.0 | 5.51     | 5.58           | 5.66 | 5.72        | 5.48 | 6.27 | 5.40           | 6.55 | 6.67 | 6.22        | 6.27 | 5.40           | 6.55 | 6.67 |
| 1980             | 0.0                           | 0.0   | 0.0   | 4.11     | 3.62           | 3.20 | 2.95        | 2.52 | 4.50 | 4.04           | 3.65 | 3.40 | 2.92        | 4.50 | 4.04           | 3.65 | 3.40 |
| 1980             | 0.0                           | 27.3  | 0.0   | 4.77     | 4.23           | 3.76 | 3.47        | 2.94 | 5.21 | 4.70           | 4.27 | 4.00 | 3.20        | 5.21 | 4.70           | 4.27 | 4.00 |
| 1980             | 0.0                           | 100.0 | 0.0   | 6.52     | 5.84           | 5.24 | 4.87        | 4.06 | 7.08 | 6.46           | 5.92 | 5.58 | 4.65        | 7.08 | 6.46           | 5.92 | 5.58 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.42     | 3.96           | 3.58 | 3.35        | 2.86 | 4.83 | 4.42           | 4.08 | 3.88 | 3.32        | 4.83 | 4.42           | 4.08 | 3.88 |
| 1980             | 20.6                          | 27.3  | 20.6  | 5.07     | 4.57           | 4.14 | 3.87        | 3.29 | 5.53 | 5.09           | 4.71 | 4.48 | 3.80        | 5.53 | 5.09           | 4.71 | 4.48 |
| 1980             | 100.0                         | 0.0   | 100.0 | 5.59     | 5.28           | 5.03 | 4.89        | 4.21 | 6.08 | 5.89           | 5.78 | 5.73 | 4.88        | 6.08 | 5.89           | 5.78 | 5.73 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.56     | 3.14           | 2.79 | 2.57        | 2.12 | 4.19 | 3.69           | 3.27 | 3.02 | 2.53        | 4.19 | 3.69           | 3.27 | 3.02 |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.12     | 3.66           | 3.27 | 3.02        | 2.48 | 4.79 | 4.27           | 3.81 | 3.53 | 2.94        | 4.79 | 4.27           | 3.81 | 3.53 |
| 1982             | 0.0                           | 100.0 | 0.0   | 5.63     | 5.05           | 4.55 | 4.24        | 3.44 | 6.41 | 5.79           | 5.25 | 4.91 | 4.03        | 6.41 | 5.79           | 5.25 | 4.91 |
| 1982             | 20.6                          | 0.0   | 20.6  | 3.91     | 3.50           | 3.15 | 2.94        | 2.41 | 4.64 | 4.13           | 3.71 | 3.45 | 2.87        | 4.64 | 4.13           | 3.71 | 3.45 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.48     | 4.02           | 3.63 | 3.39        | 2.77 | 5.24 | 4.70           | 4.25 | 3.97 | 3.28        | 5.24 | 4.70           | 4.25 | 3.97 |
| 1982             | 100.0                         | 0.0   | 100.0 | 5.28     | 4.87           | 4.54 | 4.36        | 3.52 | 6.37 | 5.82           | 5.39 | 5.13 | 4.20        | 6.37 | 5.82           | 5.39 | 5.13 |

TABLE 17 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
MOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>TEMPERATURE |      |      | MOX EMISSION FACTORS (GRAMS/MILE) |      |      | AMBIENT<br>TEMPERATURE |      |      | MOX EMISSION FACTORS (GRAMS/MILE) |      |       |
|------------------|-------------------------------|-------|-------|------------------------|------|------|-----------------------------------|------|------|------------------------|------|------|-----------------------------------|------|-------|
|                  | PCCH                          | PCMC  | PCCC  | OF                     | 75F  | 100F | OF                                | 75F  | 100F | OF                     | 75F  | 100F | OF                                | 75F  | 100F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 2.46                   | 2.26 | 2.09 | 1.99                              | 1.44 | 1.44 | 2.77                   | 2.45 | 2.17 | 2.01                              | 1.57 | 1.00F |
| 1987             | 0.0                           | 27.3  | 0.0   | 2.97                   | 2.72 | 2.51 | 2.38                              | 1.73 | 1.73 | 3.19                   | 2.84 | 2.54 | 2.35                              | 1.84 |       |
| 1987             | 0.0                           | 100.0 | 0.0   | 4.34                   | 3.97 | 3.64 | 3.42                              | 2.52 | 2.52 | 4.32                   | 3.89 | 3.51 | 3.27                              | 2.54 |       |
| 1987             | 20.6                          | 0.0   | 20.6  | 2.78                   | 2.57 | 2.40 | 2.30                              | 1.64 | 1.64 | 3.13                   | 2.78 | 2.49 | 2.31                              | 1.78 |       |
| 1987             | 20.6                          | 27.3  | 20.6  | 3.30                   | 3.04 | 2.83 | 2.69                              | 1.94 | 1.94 | 3.56                   | 3.18 | 2.46 | 2.66                              | 2.05 |       |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.04                   | 3.80 | 3.61 | 3.52                              | 2.45 | 2.45 | 4.54                   | 4.08 | 3.71 | 3.50                              | 2.59 |       |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.08                   | 1.91 | 1.86 | 1.86                              | 1.24 | 1.24 | 1.94                   | 1.77 | 1.63 | 1.54                              | 1.13 |       |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.64                   | 2.49 | 2.35 | 2.27                              | 1.55 | 1.55 | 2.31                   | 2.11 | 1.93 | 1.82                              | 1.85 |       |
| 1990             | 0.0                           | 100.0 | 0.0   | 4.14                   | 3.82 | 3.54 | 3.35                              | 2.36 | 2.36 | 3.30                   | 3.01 | 2.75 | 2.59                              | 1.93 |       |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.37                   | 2.28 | 2.21 | 2.17                              | 1.44 | 1.44 | 2.22                   | 2.04 | 1.88 | 1.79                              | 1.30 |       |
| 1990             | 20.6                          | 27.3  | 20.6  | 2.93                   | 2.78 | 2.65 | 2.58                              | 1.75 | 1.75 | 2.59                   | 2.37 | 2.19 | 2.08                              | 1.52 |       |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.48                   | 3.40 | 3.36 | 3.35                              | 2.20 | 2.20 | 3.29                   | 3.06 | 2.88 | 2.78                              | 1.96 |       |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.74                   | 1.75 | 1.76 | 1.77                              | 1.11 | 1.11 | 1.32                   | 1.27 | 1.22 | 1.19                              | 0.79 |       |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.35                   | 2.29 | 2.24 | 2.20                              | 1.43 | 1.43 | 1.67                   | 1.57 | 1.49 | 1.44                              | 0.98 |       |
| 1995             | 0.0                           | 100.0 | 0.0   | 3.97                   | 3.73 | 3.50 | 3.35                              | 2.28 | 2.28 | 2.58                   | 2.39 | 2.21 | 2.10                              | 1.48 |       |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.00                   | 2.03 | 2.06 | 2.08                              | 1.31 | 1.31 | 1.53                   | 1.48 | 1.43 | 1.41                              | 0.93 |       |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.61                   | 2.57 | 2.53 | 2.51                              | 1.63 | 1.63 | 1.88                   | 1.78 | 1.71 | 1.66                              | 1.12 |       |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.99                   | 3.09 | 3.19 | 3.26                              | 2.07 | 2.07 | 2.35                   | 2.29 | 2.26 | 2.26                              | 1.47 |       |

SENSITIVITY OF THE NONILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YR | COLD/HOT START<br>PERCENTAGES |       |       | **HDDV**       |       |                    | **LODV** |      |                |      |                    |
|----------------|-------------------------------|-------|-------|----------------|-------|--------------------|----------|------|----------------|------|--------------------|
|                | PCCH                          | PCHC  | PCCC  | AMBIENT<br>25F | 50F   | TEMPERATURE<br>75F | 100F     | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F |
| 1975           | 0.0                           | 0.0   | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.82 | 1.82           | 1.82 | 1.82               |
| 1975           | 0.0                           | 27.3  | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.82 | 1.82           | 1.82 | 1.82               |
| 1975           | 0.0                           | 100.0 | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.83 | 1.83           | 1.83 | 1.82               |
| 1975           | 20.6                          | 0.0   | 20.6  | 26.93          | 26.93 | 26.93              | 26.93    | 1.85 | 1.85           | 1.85 | 1.83               |
| 1975           | 20.6                          | 27.3  | 20.6  | 26.93          | 26.93 | 26.93              | 26.93    | 1.85 | 1.85           | 1.85 | 1.85               |
| 1975           | 100.0                         | 0.0   | 100.0 | 26.93          | 26.93 | 26.93              | 26.93    | 1.98 | 1.98           | 1.98 | 1.98               |
| 1980           | 0.0                           | 0.0   | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.64 | 1.64           | 1.64 | 1.64               |
| 1980           | 0.0                           | 27.3  | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.64 | 1.64           | 1.64 | 1.64               |
| 1980           | 0.0                           | 100.0 | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.63 | 1.63           | 1.63 | 1.63               |
| 1980           | 20.6                          | 0.0   | 20.6  | 26.93          | 26.93 | 26.93              | 26.93    | 1.66 | 1.66           | 1.66 | 1.66               |
| 1980           | 20.6                          | 27.3  | 20.6  | 26.93          | 26.93 | 26.93              | 26.93    | 1.66 | 1.66           | 1.66 | 1.66               |
| 1980           | 100.0                         | 0.0   | 100.0 | 26.93          | 26.93 | 26.93              | 26.93    | 1.77 | 1.77           | 1.77 | 1.77               |
| 1982           | 0.0                           | 0.0   | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.47 | 1.47           | 1.47 | 1.47               |
| 1982           | 0.0                           | 27.3  | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.47 | 1.47           | 1.47 | 1.47               |
| 1982           | 0.0                           | 100.0 | 0.0   | 26.93          | 26.93 | 26.93              | 26.93    | 1.47 | 1.47           | 1.47 | 1.47               |
| 1982           | 20.6                          | 0.0   | 20.6  | 26.93          | 26.93 | 26.93              | 26.93    | 1.49 | 1.49           | 1.49 | 1.49               |
| 1982           | 20.6                          | 27.3  | 20.6  | 26.93          | 26.93 | 26.93              | 26.93    | 1.49 | 1.49           | 1.49 | 1.49               |
| 1982           | 100.0                         | 0.0   | 100.0 | 26.93          | 26.93 | 26.93              | 26.93    | 1.58 | 1.58           | 1.58 | 1.58               |



TABLE 17 (Continued)  
SENSITIVITY OF THE "MOBILE" EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | AMBIENT<br>25F | **HDDV** |       | TEMPERATURE<br>75F | 100F  | 0F   | AMBIENT<br>25F | **LDDV** |      | TEMPERATURE<br>75F | 100F |
|------------------|-------------------------------|-------|----------------|----------|-------|--------------------|-------|------|----------------|----------|------|--------------------|------|
|                  | PCCH                          | PHCH  |                | 50F      | 75F   |                    |       |      |                | 50F      | 75F  |                    |      |
| 1987             | 0.0                           | 0.0   | 0.0            | 19.81    | 19.81 | 19.81              | 19.81 | 1.11 | 1.11           | 1.11     | 1.11 | 1.11               | 1.11 |
| 1987             | 0.0                           | 27.3  | 0.0            | 19.81    | 19.81 | 19.81              | 19.81 | 1.10 | 1.10           | 1.10     | 1.10 | 1.10               | 1.10 |
| 1987             | 0.0                           | 100.0 | 0.0            | 19.81    | 19.81 | 19.81              | 19.81 | 1.10 | 1.10           | 1.10     | 1.10 | 1.10               | 1.10 |
| 1987             | 20.6                          | 0.0   | 20.6           | 19.81    | 19.81 | 19.81              | 19.81 | 1.12 | 1.12           | 1.12     | 1.12 | 1.12               | 1.12 |
| 1987             | 20.6                          | 27.3  | 20.6           | 19.81    | 19.81 | 19.81              | 19.81 | 1.12 | 1.12           | 1.12     | 1.12 | 1.12               | 1.12 |
| 1987             | 100.0                         | 0.0   | 100.0          | 19.81    | 19.81 | 19.81              | 19.81 | 1.18 | 1.18           | 1.18     | 1.18 | 1.18               | 1.18 |
| 1990             | 0.0                           | 0.0   | 0.0            | 13.60    | 13.60 | 13.60              | 13.60 | 1.05 | 1.05           | 1.05     | 1.05 | 1.05               | 1.05 |
| 1990             | 0.0                           | 27.3  | 0.0            | 13.60    | 13.60 | 13.60              | 13.60 | 1.05 | 1.05           | 1.05     | 1.05 | 1.05               | 1.05 |
| 1990             | 0.0                           | 100.0 | 0.0            | 13.60    | 13.60 | 13.60              | 13.60 | 1.04 | 1.04           | 1.04     | 1.04 | 1.04               | 1.04 |
| 1990             | 20.6                          | 0.0   | 20.6           | 13.60    | 13.60 | 13.60              | 13.60 | 1.06 | 1.06           | 1.06     | 1.06 | 1.06               | 1.06 |
| 1990             | 20.6                          | 27.3  | 20.6           | 13.60    | 13.60 | 13.60              | 13.60 | 1.06 | 1.06           | 1.06     | 1.06 | 1.06               | 1.06 |
| 1990             | 100.0                         | 0.0   | 100.0          | 13.60    | 13.60 | 13.60              | 13.60 | 1.12 | 1.12           | 1.12     | 1.12 | 1.12               | 1.12 |
| 1995             | 0.0                           | 0.0   | 0.0            | 9.05     | 9.05  | 9.05               | 9.05  | 1.07 | 1.07           | 1.07     | 1.07 | 1.07               | 1.07 |
| 1995             | 0.0                           | 27.3  | 0.0            | 9.05     | 9.05  | 9.05               | 9.05  | 1.07 | 1.07           | 1.07     | 1.07 | 1.07               | 1.07 |
| 1995             | 0.0                           | 100.0 | 0.0            | 9.05     | 9.05  | 9.05               | 9.05  | 1.06 | 1.06           | 1.06     | 1.06 | 1.06               | 1.06 |
| 1995             | 20.6                          | 0.0   | 20.6           | 9.05     | 9.05  | 9.05               | 9.05  | 1.08 | 1.08           | 1.08     | 1.08 | 1.08               | 1.08 |
| 1995             | 20.6                          | 27.3  | 20.6           | 9.05     | 9.05  | 9.05               | 9.05  | 1.08 | 1.08           | 1.08     | 1.08 | 1.08               | 1.08 |
| 1995             | 100.0                         | 0.0   | 100.0          | 9.05     | 9.05  | 9.05               | 9.05  | 1.13 | 1.13           | 1.13     | 1.13 | 1.13               | 1.13 |

SENSITIVITY OF THE MOBILE? EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT<br>25F | **HNOGV** |       |             | 100F  | 0F   | AMBIENT<br>25F | **LNDY** |      |             | 75F  | 100F |
|------------------|-------------------------------|-------|-------|----------------|-----------|-------|-------------|-------|------|----------------|----------|------|-------------|------|------|
|                  | PCCH                          | PCHC  | PCCC  |                | 50F       | 75F   | TEMPERATURE |       |      |                | 50F      | 75F  | TEMPERATURE |      |      |
| 1975             | 0.0                           | 0.0   | 0.0   | 18.24          | 16.03     | 14.11 | 12.92       | 11.25 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 27.3  | 0.0   | 18.24          | 16.03     | 14.11 | 12.92       | 11.25 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 0.0                           | 100.0 | 0.0   | 18.24          | 16.03     | 14.11 | 12.92       | 11.25 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 0.0   | 20.6  | 18.24          | 16.03     | 14.11 | 12.92       | 11.25 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 20.6                          | 27.3  | 20.6  | 18.24          | 16.03     | 14.11 | 12.92       | 11.25 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  | 0.0  |
| 1975             | 100.0                         | 0.0   | 100.0 | 18.24          | 16.03     | 14.11 | 12.92       | 11.25 | 0.0  | 0.0            | 0.0      | 0.0  | 0.0         | 0.0  | 0.0  |
| 1980             | 0.0                           | 0.0   | 0.0   | 14.96          | 14.02     | 13.18 | 12.65       | 10.54 | 1.92 | 1.92           | 1.92     | 1.92 | 1.92        | 1.92 | 1.92 |
| 1980             | 0.0                           | 27.3  | 0.0   | 14.96          | 14.02     | 13.18 | 12.65       | 10.54 | 1.92 | 1.92           | 1.92     | 1.92 | 1.92        | 1.92 | 1.92 |
| 1980             | 0.0                           | 100.0 | 0.0   | 14.96          | 14.02     | 13.18 | 12.65       | 10.54 | 1.92 | 1.92           | 1.92     | 1.92 | 1.92        | 1.92 | 1.92 |
| 1980             | 20.6                          | 0.0   | 20.6  | 14.96          | 14.02     | 13.18 | 12.65       | 10.54 | 1.95 | 1.95           | 1.95     | 1.95 | 1.95        | 1.95 | 1.95 |
| 1980             | 20.6                          | 27.3  | 20.6  | 14.96          | 14.02     | 13.18 | 12.65       | 10.54 | 1.95 | 1.95           | 1.95     | 1.95 | 1.95        | 1.95 | 1.95 |
| 1980             | 100.0                         | 0.0   | 100.0 | 14.96          | 14.02     | 13.18 | 12.65       | 10.54 | 2.08 | 2.08           | 2.08     | 2.08 | 2.08        | 2.08 | 2.08 |
| 1982             | 0.0                           | 0.0   | 0.0   | 14.32          | 13.66     | 13.05 | 12.66       | 10.83 | 2.05 | 2.05           | 2.05     | 2.05 | 2.05        | 2.05 | 2.05 |
| 1982             | 0.0                           | 27.3  | 0.0   | 14.32          | 13.66     | 13.05 | 12.66       | 10.83 | 2.05 | 2.05           | 2.05     | 2.05 | 2.05        | 2.05 | 2.05 |
| 1982             | 0.0                           | 100.0 | 0.0   | 14.32          | 13.66     | 13.05 | 12.66       | 10.83 | 2.05 | 2.05           | 2.05     | 2.05 | 2.05        | 2.05 | 2.05 |
| 1982             | 20.6                          | 0.0   | 20.6  | 14.32          | 13.66     | 13.05 | 12.66       | 10.83 | 2.08 | 2.08           | 2.08     | 2.08 | 2.08        | 2.08 | 2.08 |
| 1982             | 20.6                          | 27.3  | 20.6  | 14.32          | 13.66     | 13.05 | 12.66       | 10.83 | 2.08 | 2.08           | 2.08     | 2.08 | 2.08        | 2.08 | 2.08 |
| 1982             | 100.0                         | 0.0   | 100.0 | 14.32          | 13.66     | 13.05 | 12.66       | 10.83 | 2.21 | 2.21           | 2.21     | 2.21 | 2.21        | 2.21 | 2.21 |

SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0.....MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |      |      |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|------|------|---------|------|------|-------------|------|------|
|                  | PCCC                          | PHC   | PCCC  | OF      | 25F   | 50F   | 75F         | 100F | OF   | 25F     | 50F  | 75F  | 100F        | OF   | 25F  |
| 1987             | 0.0                           | 0.0   | 0.0   | 11.69   | 11.03 | 10.44 | 10.06       | 8.33 | 1.54 | 1.54    | 1.54 | 1.54 | 1.54        | 1.54 | 1.54 |
| 1987             | 0.0                           | 27.3  | 0.0   | 11.69   | 11.03 | 10.44 | 10.06       | 8.33 | 1.54 | 1.54    | 1.54 | 1.54 | 1.54        | 1.54 | 1.54 |
| 1987             | 0.0                           | 100.0 | 0.0   | 11.69   | 11.03 | 10.44 | 10.06       | 8.33 | 1.53 | 1.53    | 1.53 | 1.53 | 1.53        | 1.53 | 1.53 |
| 1987             | 20.6                          | 0.0   | 20.6  | 11.69   | 11.03 | 10.44 | 10.06       | 8.33 | 1.56 | 1.56    | 1.56 | 1.56 | 1.56        | 1.56 | 1.56 |
| 1987             | 20.6                          | 27.3  | 20.6  | 11.69   | 11.03 | 10.44 | 10.06       | 8.33 | 1.56 | 1.56    | 1.56 | 1.56 | 1.56        | 1.56 | 1.56 |
| 1987             | 100.0                         | 0.0   | 100.0 | 11.69   | 11.03 | 10.44 | 10.06       | 8.33 | 1.64 | 1.64    | 1.64 | 1.64 | 1.64        | 1.64 | 1.64 |
| 1990             | 0.0                           | 0.0   | 0.0   | 8.92    | 8.36  | 7.86  | 7.54        | 5.84 | 1.19 | 1.19    | 1.19 | 1.19 | 1.19        | 1.19 | 1.19 |
| 1990             | 0.0                           | 27.3  | 0.0   | 8.92    | 8.36  | 7.86  | 7.54        | 5.84 | 1.19 | 1.19    | 1.19 | 1.19 | 1.19        | 1.19 | 1.19 |
| 1990             | 0.0                           | 100.0 | 0.0   | 8.92    | 8.36  | 7.86  | 7.54        | 5.84 | 1.18 | 1.18    | 1.18 | 1.18 | 1.18        | 1.18 | 1.18 |
| 1990             | 20.6                          | 0.0   | 20.6  | 8.92    | 8.36  | 7.86  | 7.54        | 5.84 | 1.21 | 1.21    | 1.21 | 1.21 | 1.21        | 1.21 | 1.21 |
| 1990             | 20.6                          | 27.3  | 20.6  | 8.92    | 8.36  | 7.86  | 7.54        | 5.84 | 1.20 | 1.20    | 1.20 | 1.20 | 1.20        | 1.20 | 1.20 |
| 1990             | 100.0                         | 0.0   | 100.0 | 8.92    | 8.36  | 7.86  | 7.54        | 5.84 | 1.27 | 1.27    | 1.27 | 1.27 | 1.27        | 1.27 | 1.27 |
| 1995             | 0.0                           | 0.0   | 0.0   | 6.47    | 6.12  | 5.80  | 5.59        | 4.00 | 1.07 | 1.07    | 1.07 | 1.07 | 1.07        | 1.07 | 1.07 |
| 1995             | 0.0                           | 27.3  | 0.0   | 6.47    | 6.12  | 5.80  | 5.59        | 4.00 | 1.06 | 1.06    | 1.06 | 1.06 | 1.06        | 1.06 | 1.06 |
| 1995             | 0.0                           | 100.0 | 0.0   | 6.47    | 6.12  | 5.80  | 5.59        | 4.00 | 1.05 | 1.05    | 1.05 | 1.05 | 1.05        | 1.05 | 1.05 |
| 1995             | 20.6                          | 0.0   | 20.6  | 6.47    | 6.12  | 5.80  | 5.59        | 4.00 | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |
| 1995             | 20.6                          | 27.3  | 20.6  | 6.47    | 6.12  | 5.80  | 5.59        | 4.00 | 1.08 | 1.08    | 1.08 | 1.08 | 1.08        | 1.08 | 1.08 |
| 1995             | 100.0                         | 0.0   | 100.0 | 6.47    | 6.12  | 5.80  | 5.59        | 4.00 | 1.13 | 1.13    | 1.13 | 1.13 | 1.13        | 1.13 | 1.13 |

SENSITIVITY OF THE MOBILE<sup>2</sup> EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |                |      |                         |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|----------------|------|-------------------------|
|                  | PCCC                          | PHC   | PCCC  | 0F                                                              | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F 100F |
| 1975             | 0.0                           | 0.0   | 0.0   | 6.84                                                            | 6.01           | 5.31 | 4.89 4.40               |
| 1975             | 0.0                           | 27.3  | 0.0   | 7.64                                                            | 6.72           | 5.94 | 5.46 4.87               |
| 1975             | 0.0                           | 100.0 | 0.0   | 9.79                                                            | 8.62           | 7.62 | 7.00 6.11               |
| 1975             | 20.6                          | 0.0   | 20.6  | 6.83                                                            | 6.17           | 5.61 | 5.28 4.83               |
| 1975             | 20.6                          | 27.3  | 20.6  | 7.64                                                            | 6.88           | 6.24 | 5.86 5.30               |
| 1975             | 100.0                         | 0.0   | 100.0 | 6.80                                                            | 6.78           | 6.78 | 6.79 6.48               |
| 1980             | 0.0                           | 0.0   | 0.0   | 5.33                                                            | 4.84           | 4.43 | 4.17 3.69               |
| 1980             | 0.0                           | 27.3  | 0.0   | 5.93                                                            | 5.40           | 4.95 | 4.66 4.08               |
| 1980             | 0.0                           | 100.0 | 0.0   | 7.54                                                            | 6.89           | 6.32 | 5.96 5.12               |
| 1980             | 20.6                          | 0.0   | 20.6  | 5.61                                                            | 5.16           | 4.78 | 4.55 4.01               |
| 1980             | 20.6                          | 27.3  | 20.6  | 6.21                                                            | 5.72           | 5.30 | 5.04 4.40               |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.69                                                            | 6.38           | 6.13 | 6.00 5.26               |
| 1982             | 0.0                           | 0.0   | 0.0   | 4.81                                                            | 4.40           | 4.04 | 3.82 3.34               |
| 1982             | 0.0                           | 27.3  | 0.0   | 5.33                                                            | 4.88           | 4.48 | 4.24 3.67               |
| 1982             | 0.0                           | 100.0 | 0.0   | 6.70                                                            | 6.15           | 5.66 | 5.36 4.55               |
| 1982             | 20.6                          | 0.0   | 20.6  | 5.14                                                            | 4.73           | 4.38 | 4.16 3.61               |
| 1982             | 20.6                          | 27.3  | 20.6  | 5.66                                                            | 5.21           | 4.82 | 4.58 3.94               |
| 1982             | 100.0                         | 0.0   | 100.0 | 6.42                                                            | 6.01           | 5.67 | 5.48 4.64               |

TABLE 17 (Continued)

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR

NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 50.0 \*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF   | COMPOSITE EMISSION FACTORS FOR THE EIGHT VEHICLE TYPES COMBINED |      |      |      |
|------------------|-------------------------------|-------|-------|------|-----------------------------------------------------------------|------|------|------|
|                  | PCCN                          | PHC   | PCCC  |      | AMBIENT<br>25F                                                  | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0   | 3.36 | 3.15                                                            | 2.96 | 2.85 | 2.32 |
| 1987             | 0.0                           | 27.3  | 0.0   | 3.79 | 3.54                                                            | 3.32 | 3.18 | 2.57 |
| 1987             | 0.0                           | 100.0 | 0.0   | 4.94 | 4.58                                                            | 4.26 | 4.06 | 3.24 |
| 1987             | 20.6                          | 0.0   | 20.6  | 3.65 | 3.42                                                            | 3.23 | 3.12 | 2.50 |
| 1987             | 20.6                          | 27.3  | 20.6  | 4.08 | 3.81                                                            | 3.59 | 3.45 | 2.75 |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.74 | 4.48                                                            | 4.28 | 4.16 | 3.20 |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.62 | 2.51                                                            | 2.41 | 2.36 | 1.81 |
| 1990             | 0.0                           | 27.3  | 0.0   | 3.05 | 2.90                                                            | 2.76 | 2.68 | 2.05 |
| 1990             | 0.0                           | 100.0 | 0.0   | 4.21 | 3.93                                                            | 3.68 | 3.52 | 2.68 |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.85 | 2.74                                                            | 2.65 | 2.60 | 1.97 |
| 1990             | 20.6                          | 27.3  | 20.6  | 3.29 | 3.13                                                            | 3.00 | 2.92 | 2.21 |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.76 | 3.65                                                            | 3.58 | 3.55 | 2.58 |
| 1995             | 0.0                           | 0.0   | 0.0   | 2.02 | 2.01                                                            | 2.00 | 1.99 | 1.45 |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.46 | 2.39                                                            | 2.34 | 2.30 | 1.68 |
| 1995             | 0.0                           | 100.0 | 0.0   | 3.62 | 3.42                                                            | 3.24 | 3.11 | 2.29 |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.22 | 2.21                                                            | 2.21 | 2.22 | 1.59 |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.65 | 2.60                                                            | 2.55 | 2.52 | 1.82 |
| 1995             | 100.0                         | 0.0   | 100.0 | 2.96 | 3.00                                                            | 3.05 | 3.09 | 2.16 |

TABLE 18  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |      |      | TEMPERATURE |      |       | AMBIENT |      |      | TEMPERATURE |       |      | AMBIENT |      |      | TEMPERATURE |      |      |      |
|------------------|-------------------------------|-------|-------|---------|------|------|-------------|------|-------|---------|------|------|-------------|-------|------|---------|------|------|-------------|------|------|------|
|                  | PCCH                          | PCHC  | PCCC  | 0F      | 25F  | 50F  | 75F         | 100F | 0F    | 25F     | 50F  | 75F  | 100F        | 0F    | 25F  | 50F     | 75F  | 100F | 0F          | 25F  | 50F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 5.93    | 5.08 | 4.36 | 3.93        | 3.46 | 6.61  | 5.73    | 4.99 | 4.54 | 3.99        | 6.61  | 5.73 | 4.99    | 4.54 | 3.99 | 6.61        | 5.73 | 4.99 | 4.54 |
| 1975             | 0.0                           | 27.3  | 0.0   | 6.85    | 5.89 | 5.08 | 4.58        | 3.99 | 7.65  | 6.66    | 5.82 | 5.30 | 4.59        | 7.65  | 6.66 | 5.82    | 5.30 | 4.59 | 7.65        | 6.66 | 5.82 | 5.30 |
| 1975             | 0.0                           | 100.0 | 0.0   | 9.30    | 8.05 | 6.98 | 6.33        | 5.41 | 10.43 | 9.13    | 8.01 | 7.33 | 6.20        | 10.43 | 9.13 | 8.01    | 7.33 | 6.20 | 10.43       | 9.13 | 8.01 | 7.33 |
| 1975             | 20.6                          | 0.0   | 20.6  | 5.92    | 5.25 | 4.70 | 4.37        | 3.95 | 6.62  | 5.95    | 5.40 | 5.06 | 4.53        | 6.62  | 5.95 | 5.40    | 5.06 | 4.53 | 6.62        | 5.95 | 5.40 | 5.06 |
| 1975             | 20.6                          | 27.3  | 20.6  | 6.84    | 6.07 | 5.42 | 5.03        | 4.48 | 7.66  | 6.88    | 6.22 | 5.82 | 5.13        | 7.66  | 6.88 | 6.22    | 5.82 | 5.13 | 7.66        | 6.88 | 6.22 | 5.82 |
| 1975             | 100.0                         | 0.0   | 100.0 | 5.87    | 5.94 | 6.03 | 6.09        | 5.84 | 6.66  | 6.80    | 6.96 | 7.08 | 6.61        | 6.66  | 6.80 | 6.96    | 7.08 | 6.61 | 6.66        | 6.80 | 6.96 | 7.08 |
| 1980             | 0.0                           | 0.0   | 0.0   | 4.40    | 3.88 | 3.43 | 3.16        | 2.70 | 4.82  | 4.33    | 3.90 | 3.64 | 3.13        | 4.82  | 4.33 | 3.90    | 3.64 | 3.13 | 4.82        | 4.33 | 3.90 | 3.64 |
| 1980             | 0.0                           | 27.3  | 0.0   | 5.11    | 4.53 | 4.03 | 3.72        | 3.15 | 5.57  | 5.03    | 4.57 | 4.28 | 3.63        | 5.57  | 5.03 | 4.57    | 4.28 | 3.63 | 5.57        | 5.03 | 4.57 | 4.28 |
| 1980             | 0.0                           | 100.0 | 0.0   | 6.98    | 6.25 | 5.61 | 5.22        | 4.35 | 7.57  | 6.91    | 6.34 | 5.97 | 4.97        | 7.57  | 6.91 | 6.34    | 5.97 | 4.97 | 7.57        | 6.91 | 6.34 | 5.97 |
| 1980             | 20.6                          | 0.0   | 20.6  | 4.73    | 4.25 | 3.84 | 3.59        | 3.07 | 5.17  | 4.74    | 4.37 | 4.15 | 3.56        | 5.17  | 4.74 | 4.37    | 4.15 | 3.56 | 5.17        | 4.74 | 4.37 | 4.15 |
| 1980             | 20.6                          | 27.3  | 20.6  | 5.44    | 4.89 | 4.43 | 4.15        | 3.52 | 5.92  | 5.44    | 5.04 | 4.79 | 4.06        | 5.92  | 5.44 | 5.04    | 4.79 | 4.06 | 5.92        | 5.44 | 5.04 | 4.79 |
| 1980             | 100.0                         | 0.0   | 100.0 | 6.00    | 5.66 | 5.39 | 5.24        | 4.51 | 6.52  | 6.32    | 6.19 | 6.14 | 5.22        | 6.52  | 6.32 | 6.19    | 6.14 | 5.22 | 6.52        | 6.32 | 6.19 | 6.14 |
| 1982             | 0.0                           | 0.0   | 0.0   | 3.82    | 3.37 | 2.99 | 2.76        | 2.28 | 4.49  | 3.97    | 3.52 | 3.24 | 2.72        | 4.49  | 3.97 | 3.52    | 3.24 | 2.72 | 4.49        | 3.97 | 3.52 | 3.24 |
| 1982             | 0.0                           | 27.3  | 0.0   | 4.43    | 3.93 | 3.51 | 3.25        | 2.66 | 5.15  | 4.58    | 4.09 | 3.79 | 3.15        | 5.15  | 4.58 | 4.09    | 3.79 | 3.15 | 5.15        | 4.58 | 4.09 | 3.79 |
| 1982             | 0.0                           | 100.0 | 0.0   | 6.04    | 5.42 | 4.89 | 4.55        | 3.69 | 6.88  | 6.22    | 5.63 | 5.27 | 4.32        | 6.88  | 6.22 | 5.63    | 5.27 | 4.32 | 6.88        | 6.22 | 5.63 | 5.27 |
| 1982             | 20.6                          | 0.0   | 20.6  | 4.21    | 3.76 | 3.38 | 3.15        | 2.59 | 4.98  | 4.44    | 3.98 | 3.71 | 3.09        | 4.98  | 4.44 | 3.98    | 3.71 | 3.09 | 4.98        | 4.44 | 3.98 | 3.71 |
| 1982             | 20.6                          | 27.3  | 20.6  | 4.81    | 4.32 | 3.90 | 3.64        | 2.97 | 5.63  | 5.05    | 4.56 | 4.26 | 3.52        | 5.63  | 5.05 | 4.56    | 4.26 | 3.52 | 5.63        | 5.05 | 4.56 | 4.26 |
| 1982             | 100.0                         | 0.0   | 100.0 | 5.68    | 5.23 | 4.88 | 4.68        | 3.78 | 6.85  | 6.25    | 5.78 | 5.51 | 4.51        | 6.85  | 6.25 | 5.78    | 5.51 | 4.51 | 6.85        | 6.25 | 5.78 | 5.51 |

TABLE 18 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | OF   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F | 0F   | AMBIENT<br>25F | 50F  | TEMPERATURE<br>75F | 100F  | TEMPERATURE<br>75F |
|------------------|-------------------------------|-------|-------|------|----------------|------|--------------------|------|------|----------------|------|--------------------|-------|--------------------|
| 1987             | 0.0                           | 0.0   | 0.0   | 2.65 | 2.43           | 2.25 | 2.14               | 1.55 | 2.98 | 2.63           | 2.34 | 2.16               | 1.00F | 100F               |
| 1987             | 0.0                           | 27.3  | 0.0   | 3.20 | 2.94           | 2.71 | 2.56               | 1.87 | 3.43 | 3.06           | 2.73 | 2.53               | 1.69  | 1.69               |
| 1987             | 0.0                           | 100.0 | 0.0   | 4.68 | 4.28           | 3.92 | 3.69               | 2.71 | 4.65 | 4.19           | 3.78 | 3.52               | 1.99  | 1.99               |
| 1987             | 20.6                          | 0.0   | 20.6  | 3.00 | 2.77           | 2.59 | 2.48               | 1.77 | 3.37 | 3.00           | 2.68 | 2.49               | 2.73  | 2.73               |
| 1987             | 20.6                          | 27.3  | 20.6  | 3.56 | 3.28           | 3.04 | 2.90               | 2.09 | 3.83 | 3.42           | 3.07 | 2.86               | 1.92  | 1.92               |
| 1987             | 100.0                         | 0.0   | 100.0 | 4.36 | 4.09           | 3.90 | 3.79               | 2.64 | 4.90 | 4.40           | 4.00 | 3.77               | 2.20  | 2.20               |
| 1990             | 0.0                           | 0.0   | 0.0   | 2.24 | 2.14           | 2.06 | 2.01               | 1.34 | 2.10 | 1.91           | 1.75 | 1.66               | 1.22  | 1.22               |
| 1990             | 0.0                           | 27.3  | 0.0   | 2.85 | 2.68           | 2.54 | 2.45               | 1.67 | 2.49 | 2.27           | 2.08 | 1.97               | 1.45  | 1.45               |
| 1990             | 0.0                           | 100.0 | 0.0   | 4.46 | 4.12           | 3.82 | 3.62               | 2.55 | 3.55 | 3.24           | 2.96 | 2.79               | 2.08  | 2.08               |
| 1990             | 20.6                          | 0.0   | 20.6  | 2.55 | 2.46           | 2.38 | 2.34               | 1.55 | 2.39 | 2.20           | 2.03 | 1.93               | 1.40  | 1.40               |
| 1990             | 20.6                          | 27.3  | 20.6  | 3.16 | 3.00           | 2.86 | 2.78               | 1.88 | 2.79 | 2.56           | 2.36 | 2.24               | 1.64  | 1.64               |
| 1990             | 100.0                         | 0.0   | 100.0 | 3.75 | 3.67           | 3.62 | 3.61               | 2.37 | 3.55 | 3.30           | 3.11 | 3.00               | 2.11  | 2.11               |
| 1995             | 0.0                           | 0.0   | 0.0   | 1.88 | 1.89           | 1.90 | 1.91               | 1.20 | 1.43 | 1.36           | 1.31 | 1.28               | 0.86  | 0.86               |
| 1995             | 0.0                           | 27.3  | 0.0   | 2.53 | 2.47           | 2.41 | 2.38               | 1.54 | 1.80 | 1.70           | 1.61 | 1.55               | 1.06  | 1.06               |
| 1995             | 0.0                           | 100.0 | 0.0   | 4.29 | 4.02           | 3.77 | 3.61               | 2.46 | 2.79 | 2.58           | 2.39 | 2.27               | 1.59  | 1.59               |
| 1995             | 20.6                          | 0.0   | 20.6  | 2.16 | 2.19           | 2.22 | 2.25               | 1.41 | 1.66 | 1.59           | 1.55 | 1.52               | 1.01  | 1.01               |
| 1995             | 20.6                          | 27.3  | 20.6  | 2.81 | 2.77           | 2.73 | 2.71               | 1.76 | 2.03 | 1.92           | 1.84 | 1.79               | 1.21  | 1.21               |
| 1995             | 100.0                         | 0.0   | 100.0 | 3.23 | 3.33           | 3.44 | 3.52               | 2.23 | 2.53 | 2.47           | 2.44 | 2.43               | 1.59  | 1.59               |



TABLE 18 (Continued)  
SENSITIVITY OF THE HORILEP EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AIR/TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0 \*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | AMBIENT |      | TEMPERATURE |       | AMBIENT |       | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      | AMBIENT |      | TEMPERATURE |      |
|------------------|-------------------------------|-------|---------|------|-------------|-------|---------|-------|-------------|------|---------|------|-------------|------|---------|------|-------------|------|
|                  | PCCH                          | PHCC  | PCCH    | PHCC | OF          | 50F   | 75F     | 100F  | OF          | 25F  | 50F     | 75F  | 100F        | OF   | 25F     | 50F  | 75F         | 100F |
| 1975             | 0.0                           | 0.0   | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.0A        | 2.0P | 2.0A    | 2.0P | 2.0A        | 2.0P | 2.0A    | 2.0P | 2.0A        | 2.0P |
| 1975             | 0.0                           | 27.3  | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.0A        | 2.0A | 2.0A    | 2.0P | 2.0A        | 2.0P | 2.0A    | 2.0P | 2.0A        | 2.0P |
| 1975             | 0.0                           | 100.0 | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.0A        | 2.0A | 2.0A    | 2.0P | 2.0A        | 2.0P | 2.0A    | 2.0P | 2.0A        | 2.0P |
| 1975             | 20.6                          | 0.0   | 20.6    | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.11        | 2.11 | 2.11    | 2.11 | 2.11        | 2.11 | 2.11    | 2.11 | 2.11        | 2.11 |
| 1975             | 20.6                          | 27.3  | 20.6    | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.12        | 2.12 | 2.12    | 2.12 | 2.12        | 2.12 | 2.12    | 2.12 | 2.12        | 2.12 |
| 1975             | 100.0                         | 0.0   | 100.0   | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.26        | 2.26 | 2.26    | 2.26 | 2.26        | 2.26 | 2.26    | 2.26 | 2.26        | 2.26 |
| 1980             | 0.0                           | 0.0   | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.87        | 1.87 | 1.87    | 1.87 | 1.87        | 1.87 | 1.87    | 1.87 | 1.87        | 1.87 |
| 1980             | 0.0                           | 27.3  | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.87        | 1.87 | 1.87    | 1.87 | 1.87        | 1.87 | 1.87    | 1.87 | 1.87        | 1.87 |
| 1980             | 0.0                           | 100.0 | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.87        | 1.87 | 1.87    | 1.87 | 1.87        | 1.87 | 1.87    | 1.87 | 1.87        | 1.87 |
| 1980             | 20.6                          | 0.0   | 20.6    | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.90        | 1.90 | 1.90    | 1.90 | 1.90        | 1.90 | 1.90    | 1.90 | 1.90        | 1.90 |
| 1980             | 20.6                          | 27.3  | 20.6    | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.90        | 1.90 | 1.90    | 1.90 | 1.90        | 1.90 | 1.90    | 1.90 | 1.90        | 1.90 |
| 1980             | 100.0                         | 0.0   | 100.0   | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 2.02        | 2.02 | 2.02    | 2.02 | 2.02        | 2.02 | 2.02    | 2.02 | 2.02        | 2.02 |
| 1982             | 0.0                           | 0.0   | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.68        | 1.68 | 1.68    | 1.68 | 1.68        | 1.68 | 1.68    | 1.68 | 1.68        | 1.68 |
| 1982             | 0.0                           | 27.3  | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.68        | 1.68 | 1.68    | 1.68 | 1.68        | 1.68 | 1.68    | 1.68 | 1.68        | 1.68 |
| 1982             | 0.0                           | 100.0 | 0.0     | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.67        | 1.67 | 1.67    | 1.67 | 1.67        | 1.67 | 1.67    | 1.67 | 1.67        | 1.67 |
| 1982             | 20.6                          | 0.0   | 20.6    | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.71        | 1.71 | 1.71    | 1.71 | 1.71        | 1.71 | 1.71    | 1.71 | 1.71        | 1.71 |
| 1982             | 20.6                          | 27.3  | 20.6    | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.71        | 1.71 | 1.71    | 1.71 | 1.71        | 1.71 | 1.71    | 1.71 | 1.71        | 1.71 |
| 1982             | 100.0                         | 0.0   | 100.0   | 0.0  | 30.76       | 30.76 | 30.76   | 30.76 | 1.81        | 1.81 | 1.81    | 1.81 | 1.81        | 1.81 | 1.81    | 1.81 | 1.81        | 1.81 |

TABLE 18 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | **HNDV**       |       |       | **LDDV**       |      |      | TEMPERATURE<br>75F | TEMPERATURE<br>100F |
|------------------|-------------------------------|-------|-------|----------------|-------|-------|----------------|------|------|--------------------|---------------------|
|                  | PCCH                          | PCHC  | PCCC  | AMBIENT<br>25F | 50F   | 75F   | AMBIENT<br>25F | 50F  | 75F  |                    |                     |
| 1987             | 0.0                           | 0.0   | 0.0   | 22.62          | 22.62 | 22.62 | 1.26           | 1.26 | 1.26 | 1.26               | 1.26                |
| 1987             | 0.0                           | 27.3  | 0.0   | 22.62          | 22.62 | 22.62 | 1.26           | 1.26 | 1.26 | 1.26               | 1.26                |
| 1987             | 0.0                           | 100.0 | 0.0   | 22.62          | 22.62 | 22.62 | 1.25           | 1.25 | 1.25 | 1.25               | 1.25                |
| 1987             | 20.6                          | 0.0   | 20.6  | 22.62          | 22.62 | 22.62 | 1.28           | 1.28 | 1.28 | 1.28               | 1.28                |
| 1987             | 20.6                          | 27.3  | 20.6  | 22.62          | 22.62 | 22.62 | 1.28           | 1.28 | 1.28 | 1.28               | 1.28                |
| 1987             | 100.0                         | 0.0   | 100.0 | 22.62          | 22.62 | 22.62 | 1.35           | 1.35 | 1.35 | 1.35               | 1.35                |
| 1990             | 0.0                           | 0.0   | 0.0   | 15.53          | 15.53 | 15.53 | 1.20           | 1.20 | 1.20 | 1.20               | 1.20                |
| 1990             | 0.0                           | 27.3  | 0.0   | 15.53          | 15.53 | 15.53 | 1.20           | 1.20 | 1.20 | 1.20               | 1.20                |
| 1990             | 0.0                           | 100.0 | 0.0   | 15.53          | 15.53 | 15.53 | 1.19           | 1.19 | 1.19 | 1.19               | 1.19                |
| 1990             | 20.6                          | 0.0   | 20.6  | 15.53          | 15.53 | 15.53 | 1.21           | 1.21 | 1.21 | 1.21               | 1.21                |
| 1990             | 20.6                          | 27.3  | 20.6  | 15.53          | 15.53 | 15.53 | 1.21           | 1.21 | 1.21 | 1.21               | 1.21                |
| 1990             | 100.0                         | 0.0   | 100.0 | 15.53          | 15.53 | 15.53 | 1.28           | 1.28 | 1.28 | 1.28               | 1.28                |
| 1995             | 0.0                           | 0.0   | 0.0   | 10.34          | 10.34 | 10.34 | 1.22           | 1.22 | 1.22 | 1.22               | 1.22                |
| 1995             | 0.0                           | 27.3  | 0.0   | 10.34          | 10.34 | 10.34 | 1.22           | 1.22 | 1.22 | 1.22               | 1.22                |
| 1995             | 0.0                           | 100.0 | 0.0   | 10.34          | 10.34 | 10.34 | 1.20           | 1.20 | 1.20 | 1.20               | 1.20                |
| 1995             | 20.6                          | 0.0   | 20.6  | 10.34          | 10.34 | 10.34 | 1.24           | 1.24 | 1.24 | 1.24               | 1.24                |
| 1995             | 20.6                          | 27.3  | 20.6  | 10.34          | 10.34 | 10.34 | 1.23           | 1.23 | 1.23 | 1.23               | 1.23                |
| 1995             | 100.0                         | 0.0   | 100.0 | 10.34          | 10.34 | 10.34 | 1.29           | 1.29 | 1.29 | 1.29               | 1.29                |

TABLE 18 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/HILF)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE |      |      | AMBIENT |      |      | TEMPERATURE |  |  |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|------|------|---------|------|------|-------------|--|--|
|                  | PCCC                          | PCWC  | PCCC  | 0F      | 50F   | 75F   | 100F        | 0F   | 25F  | 50F     | 75F  | 100F |             |  |  |
| 1975             | 0.0                           | 0.0   | 0.0   | 18.88   | 14.61 | 13.37 | 11.64       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  |             |  |  |
| 1975             | 0.0                           | 27.3  | 0.0   | 18.88   | 14.61 | 13.37 | 11.64       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  |             |  |  |
| 1975             | 0.0                           | 100.0 | 0.0   | 18.88   | 14.61 | 13.37 | 11.64       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  |             |  |  |
| 1975             | 20.6                          | 0.0   | 20.6  | 18.88   | 14.61 | 13.37 | 11.64       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  |             |  |  |
| 1975             | 20.6                          | 27.3  | 20.6  | 18.88   | 14.61 | 13.37 | 11.64       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  |             |  |  |
| 1975             | 100.0                         | 0.0   | 100.0 | 18.88   | 14.61 | 13.37 | 11.64       | 0.0  | 0.0  | 0.0     | 0.0  | 0.0  |             |  |  |
| 1980             | 0.0                           | 0.0   | 0.0   | 15.48   | 13.64 | 13.09 | 10.91       | 2.19 | 2.19 | 2.19    | 2.19 | 2.19 |             |  |  |
| 1980             | 0.0                           | 27.3  | 0.0   | 15.48   | 13.64 | 13.09 | 10.91       | 2.19 | 2.19 | 2.19    | 2.19 | 2.19 |             |  |  |
| 1980             | 0.0                           | 100.0 | 0.0   | 15.48   | 13.64 | 13.09 | 10.91       | 2.19 | 2.19 | 2.19    | 2.19 | 2.19 |             |  |  |
| 1980             | 20.6                          | 0.0   | 20.6  | 15.48   | 13.64 | 13.09 | 10.91       | 2.23 | 2.23 | 2.23    | 2.23 | 2.23 |             |  |  |
| 1980             | 20.6                          | 27.3  | 20.6  | 15.48   | 13.64 | 13.09 | 10.91       | 2.23 | 2.23 | 2.23    | 2.23 | 2.23 |             |  |  |
| 1980             | 100.0                         | 0.0   | 100.0 | 15.48   | 13.64 | 13.09 | 10.91       | 2.37 | 2.37 | 2.37    | 2.37 | 2.37 |             |  |  |
| 1982             | 0.0                           | 0.0   | 0.0   | 14.82   | 13.51 | 13.10 | 11.20       | 2.34 | 2.34 | 2.34    | 2.34 | 2.34 |             |  |  |
| 1982             | 0.0                           | 27.3  | 0.0   | 14.82   | 13.51 | 13.10 | 11.20       | 2.34 | 2.34 | 2.34    | 2.34 | 2.34 |             |  |  |
| 1982             | 0.0                           | 100.0 | 0.0   | 14.82   | 13.51 | 13.10 | 11.20       | 2.34 | 2.34 | 2.34    | 2.34 | 2.34 |             |  |  |
| 1982             | 20.6                          | 0.0   | 20.6  | 14.82   | 13.51 | 13.10 | 11.20       | 2.38 | 2.38 | 2.38    | 2.38 | 2.38 |             |  |  |
| 1982             | 20.6                          | 27.3  | 20.6  | 14.82   | 13.51 | 13.10 | 11.20       | 2.38 | 2.38 | 2.38    | 2.38 | 2.38 |             |  |  |
| 1982             | 100.0                         | 0.0   | 100.0 | 14.82   | 13.51 | 13.10 | 11.20       | 2.53 | 2.53 | 2.53    | 2.53 | 2.53 |             |  |  |

TABLE 18 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       |       | AMBIENT |       |       | TEMPERATURE | AMBIENT |      |      | TEMPERATURE | AMBIENT |      |      | TEMPERATURE |
|------------------|-------------------------------|-------|-------|---------|-------|-------|-------------|---------|------|------|-------------|---------|------|------|-------------|
|                  | PCCH                          | FCHC  | PCCH  | 0F      | 25F   | 50F   | 75F         | 0F      | 25F  | 50F  | 75F         | 0F      | 25F  | 50F  | 75F         |
| 1987             | 0.0                           | 0.0   | 0.0   | 12.10   | 11.41 | 10.80 | 10.41       | 8.62    | 1.76 | 1.76 | 1.76        | 1.76    | 1.76 | 1.76 | 1.76        |
| 1987             | 0.0                           | 27.3  | 0.0   | 12.10   | 11.41 | 10.80 | 10.41       | 8.62    | 1.76 | 1.76 | 1.76        | 1.76    | 1.76 | 1.76 | 1.76        |
| 1987             | 0.0                           | 100.0 | 0.0   | 12.10   | 11.41 | 10.80 | 10.41       | 8.62    | 1.74 | 1.74 | 1.74        | 1.74    | 1.74 | 1.74 | 1.74        |
| 1987             | 20.6                          | 0.0   | 20.6  | 12.10   | 11.41 | 10.80 | 10.41       | 8.62    | 1.78 | 1.78 | 1.78        | 1.78    | 1.78 | 1.78 | 1.78        |
| 1987             | 20.6                          | 27.3  | 20.6  | 12.10   | 11.41 | 10.80 | 10.41       | 8.62    | 1.78 | 1.78 | 1.78        | 1.78    | 1.78 | 1.78 | 1.78        |
| 1987             | 100.0                         | 0.0   | 100.0 | 12.10   | 11.41 | 10.80 | 10.41       | 8.62    | 1.88 | 1.88 | 1.88        | 1.88    | 1.88 | 1.88 | 1.88        |
| 1990             | 0.0                           | 0.0   | 0.0   | 9.23    | 8.65  | 8.13  | 7.80        | 6.04    | 1.36 | 1.36 | 1.36        | 1.36    | 1.36 | 1.36 | 1.36        |
| 1990             | 0.0                           | 27.3  | 0.0   | 9.23    | 8.65  | 8.13  | 7.80        | 6.04    | 1.36 | 1.36 | 1.36        | 1.36    | 1.36 | 1.36 | 1.36        |
| 1990             | 0.0                           | 100.0 | 0.0   | 9.23    | 8.65  | 8.13  | 7.80        | 6.04    | 1.35 | 1.35 | 1.35        | 1.35    | 1.35 | 1.35 | 1.35        |
| 1990             | 20.6                          | 0.0   | 20.6  | 9.23    | 8.65  | 8.13  | 7.80        | 6.04    | 1.38 | 1.38 | 1.38        | 1.38    | 1.38 | 1.38 | 1.38        |
| 1990             | 20.6                          | 27.3  | 20.6  | 9.23    | 8.65  | 8.13  | 7.80        | 6.04    | 1.37 | 1.37 | 1.37        | 1.37    | 1.37 | 1.37 | 1.37        |
| 1990             | 100.0                         | 0.0   | 100.0 | 9.23    | 8.65  | 8.13  | 7.80        | 6.04    | 1.45 | 1.45 | 1.45        | 1.45    | 1.45 | 1.45 | 1.45        |
| 1995             | 0.0                           | 0.0   | 0.0   | 6.69    | 6.34  | 6.01  | 5.79        | 4.14    | 1.22 | 1.22 | 1.22        | 1.22    | 1.22 | 1.22 | 1.22        |
| 1995             | 0.0                           | 27.3  | 0.0   | 6.69    | 6.34  | 6.01  | 5.79        | 4.14    | 1.21 | 1.21 | 1.21        | 1.21    | 1.21 | 1.21 | 1.21        |
| 1995             | 0.0                           | 100.0 | 0.0   | 6.69    | 6.34  | 6.01  | 5.79        | 4.14    | 1.20 | 1.20 | 1.20        | 1.20    | 1.20 | 1.20 | 1.20        |
| 1995             | 20.6                          | 0.0   | 20.6  | 6.69    | 6.34  | 6.01  | 5.79        | 4.14    | 1.23 | 1.23 | 1.23        | 1.23    | 1.23 | 1.23 | 1.23        |
| 1995             | 20.6                          | 27.3  | 20.6  | 6.69    | 6.34  | 6.01  | 5.79        | 4.14    | 1.23 | 1.23 | 1.23        | 1.23    | 1.23 | 1.23 | 1.23        |
| 1995             | 100.0                         | 0.0   | 100.0 | 6.69    | 6.34  | 6.01  | 5.79        | 4.14    | 1.29 | 1.29 | 1.29        | 1.29    | 1.29 | 1.29 | 1.29        |

TABLE 18 (Continued)  
SENSITIVITY OF THE MOBILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
NOX EMISSION FACTORS (GRAMS/MILE)  
SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | OF    | COMPOSITE EMISSION FACTORS FOR THE LIGHT VEHICLE TYPES COMBINED |      |      |
|------------------|-------------------------------|-------|-------|-----------------------------------------------------------------|------|------|
|                  | PCCH                          | PCHC  |       | AMBIENT<br>25F                                                  | 50F  | 75F  |
| 1975             | 0.0                           | 0.0   | 0.0   | 7.33                                                            | 6.45 | 5.71 |
| 1975             | 0.0                           | 27.3  | 0.0   | 8.19                                                            | 7.21 | 6.38 |
| 1975             | 0.0                           | 100.0 | 0.0   | 10.47                                                           | 9.23 | 8.16 |
| 1975             | 20.6                          | 0.0   | 20.6  | 7.32                                                            | 6.62 | 7.51 |
| 1975             | 20.6                          | 27.3  | 20.6  | 8.18                                                            | 7.38 | 6.67 |
| 1975             | 100.0                         | 0.0   | 100.0 | 7.29                                                            | 6.70 | 6.29 |
| 1980             | 0.0                           | 0.0   | 0.0   | 5.75                                                            | 5.23 | 4.52 |
| 1980             | 0.0                           | 27.3  | 0.0   | 6.39                                                            | 5.83 | 5.04 |
| 1980             | 0.0                           | 100.0 | 0.0   | 8.12                                                            | 7.42 | 6.43 |
| 1980             | 20.6                          | 0.0   | 20.6  | 6.05                                                            | 5.57 | 4.92 |
| 1980             | 20.6                          | 27.3  | 20.6  | 6.70                                                            | 6.17 | 5.44 |
| 1980             | 100.0                         | 0.0   | 100.0 | 7.21                                                            | 6.88 | 6.47 |
| 1982             | 0.0                           | 0.0   | 0.0   | 5.21                                                            | 4.76 | 4.14 |
| 1982             | 0.0                           | 27.3  | 0.0   | 5.76                                                            | 5.27 | 4.60 |
| 1982             | 0.0                           | 100.0 | 0.0   | 7.23                                                            | 6.64 | 5.80 |
| 1982             | 20.6                          | 0.0   | 20.6  | 5.56                                                            | 5.12 | 4.51 |
| 1982             | 20.6                          | 27.3  | 20.6  | 6.12                                                            | 5.63 | 4.96 |
| 1982             | 100.0                         | 0.0   | 100.0 | 6.94                                                            | 6.13 | 5.93 |

TABLE 18 (Continued)  
 SENSITIVITY OF THE MORILE2 EMISSION FACTORS TO VARIATIONS IN VEHICLE SPEED,  
 AMBIENT TEMPERATURE, AND COLD/HOT START VMT PERCENTAGES BY CALENDAR YEAR  
 NOX EMISSION FACTORS (GRAMS/MILE)  
 SPEED = 55.0\*\*\*\*\*MPH

| CALENDAR<br>YEAR | COLD/HOT START<br>PERCENTAGES |       | COMPOSITE EMISSION FACTORS FOR THE LIGHT VEHICLE TYPES COMBINED |      |                |      |      |      |
|------------------|-------------------------------|-------|-----------------------------------------------------------------|------|----------------|------|------|------|
|                  | PCCH                          | PCMC  | PCCC                                                            | 0F   | AMBIENT<br>25F | 50F  | 75F  | 100F |
| 1987             | 0.0                           | 0.0   | 0.0                                                             | 3.65 | 3.42           | 3.22 | 3.10 | 2.54 |
| 1987             | 0.0                           | 27.3  | 0.0                                                             | 4.11 | 3.84           | 3.60 | 3.46 | 2.80 |
| 1987             | 0.0                           | 100.0 | 0.0                                                             | 5.35 | 4.96           | 4.62 | 4.40 | 3.52 |
| 1987             | 20.6                          | 0.0   | 20.6                                                            | 3.96 | 3.71           | 3.51 | 3.39 | 2.73 |
| 1987             | 20.6                          | 27.3  | 20.6                                                            | 4.42 | 4.14           | 3.90 | 3.75 | 3.00 |
| 1987             | 100.0                         | 0.0   | 100.0                                                           | 5.14 | 4.86           | 4.64 | 4.51 | 3.48 |
| 1990             | 0.0                           | 0.0   | 0.0                                                             | 2.84 | 2.72           | 2.63 | 2.57 | 1.98 |
| 1990             | 0.0                           | 27.3  | 0.0                                                             | 3.31 | 3.14           | 3.00 | 2.91 | 2.23 |
| 1990             | 0.0                           | 100.0 | 0.0                                                             | 4.56 | 4.26           | 3.99 | 3.82 | 2.91 |
| 1990             | 20.6                          | 0.0   | 20.6                                                            | 3.09 | 2.94           | 2.88 | 2.83 | 2.15 |
| 1990             | 20.6                          | 27.3  | 20.6                                                            | 3.56 | 3.40           | 3.26 | 3.17 | 2.40 |
| 1990             | 100.0                         | 0.0   | 100.0                                                           | 4.07 | 3.96           | 3.88 | 3.85 | 2.81 |
| 1995             | 0.0                           | 0.0   | 0.0                                                             | 2.20 | 2.19           | 2.17 | 2.17 | 1.58 |
| 1995             | 0.0                           | 27.3  | 0.0                                                             | 2.67 | 2.60           | 2.54 | 2.50 | 1.83 |
| 1995             | 0.0                           | 100.0 | 0.0                                                             | 3.92 | 3.71           | 3.51 | 3.38 | 2.49 |
| 1995             | 20.6                          | 0.0   | 20.6                                                            | 2.41 | 2.41           | 2.41 | 2.41 | 1.74 |
| 1995             | 20.6                          | 27.3  | 20.6                                                            | 2.88 | 2.82           | 2.77 | 2.74 | 1.99 |
| 1995             | 100.0                         | 0.0   | 100.0                                                           | 3.22 | 3.26           | 3.31 | 3.35 | 2.35 |

TABLE 19

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
HC EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 0%  
DRY BULB TEMPERATURE = 71°F, WET BULB TEMPERATURE = 66°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             |                  | LDGT         |             |                  | Composite Emission Factor<br>All Eight Vehicles Combined |             |                  |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|----------------------------------------------------------|-------------|------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0                                         | Towing<br>5 | Percentage<br>10 |
| 1980             | 0%                       | 4.70         | 4.79        | 4.89             | 5.16         | 5.27        | 5.37             | 5.22                                                     | 5.31        | 5.39             |
|                  | 5                        | 4.71         | 4.80        | 4.90             | 5.17         | 5.28        | 5.38             | 5.23                                                     | 5.32        | 5.41             |
|                  | 15                       | 4.73         | 4.83        | 4.92             | 5.19         | 5.30        | 5.41             | 5.25                                                     | 5.34        | 5.43             |
| 1982<br>1-145    | 0                        | 3.75         | 3.84        | 3.92             | 3.83         | 3.91        | 3.99             | 4.17                                                     | 4.25        | 4.33             |
|                  | 5                        | 3.76         | 3.85        | 3.93             | 3.83         | 3.92        | 4.00             | 4.18                                                     | 4.26        | 4.33             |
|                  | 10                       | 3.77         | 3.85        | 3.94             | 3.84         | 3.93        | 4.01             | 4.19                                                     | 4.27        | 4.34             |
|                  | 15                       | 3.78         | 3.86        | 3.95             | 3.85         | 3.93        | 4.02             | 4.20                                                     | 4.27        | 4.35             |
| 1987             | 0                        | 2.17         | 3.23        | 2.28             | 2.14         | 2.20        | 2.25             | 2.37                                                     | 2.42        | 2.46             |
|                  | 5                        | 2.17         | 2.23        | 2.29             | 2.15         | 2.21        | 2.26             | 2.38                                                     | 2.43        | 2.47             |
|                  | 10                       | 2.18         | 2.24        | 2.29             | 2.15         | 2.21        | 2.26             | 2.38                                                     | 2.43        | 2.47             |
|                  | 15                       | 2.18         | 2.24        | 2.30             | 2.16         | 2.21        | 2.27             | 2.38                                                     | 2.43        | 2.48             |
| 1990             | 0                        | 1.66         | 1.71        | 1.75             | 1.53         | 1.57        | 1.61             | 1.76                                                     | 1.80        | 1.83             |
|                  | 5                        | 1.66         | 1.71        | 1.75             | 1.54         | 1.58        | 1.62             | 1.76                                                     | 1.80        | 1.83             |
|                  | 10                       | 1.67         | 1.71        | 1.76             | 1.54         | 1.58        | 1.62             | 1.77                                                     | 1.80        | 1.84             |
|                  | 15                       | 1.67         | 1.72        | 1.76             | 1.54         | 1.58        | 1.62             | 1.77                                                     | 1.80        | 1.84             |



TABLE 20

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
HC EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 50%  
DRY BULB TEMPERATURE = 79°F, WET BULB TEMPERATURE = 71°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             |                  | LDGT         |             |                  | Composite Emission Factor<br>All Eight Vehicles Combined |             |                  |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|----------------------------------------------------------|-------------|------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0                                         | Towing<br>5 | Percentage<br>10 |
| 1980             | 0%                       | 4.72         | 4.82        | 4.92             | 5.18         | 5.29        | 5.39             | 5.24                                                     | 5.33        | 5.42             |
|                  | 5                        | 4.73         | 4.83        | 4.93             | 5.19         | 5.30        | 5.41             | 5.25                                                     | 5.34        | 5.43             |
|                  | 10                       | 4.75         | 4.84        | 4.94             | 5.20         | 5.31        | 5.42             | 5.26                                                     | 5.35        | 5.44             |
|                  | 15                       | 4.76         | 4.85        | 4.95             | 5.21         | 5.32        | 5.43             | 5.27                                                     | 5.36        | 5.45             |
| 1982             | 0                        | 3.77         | 3.86        | 3.94             | 3.84         | 3.92        | 4.01             | 4.19                                                     | 4.27        | 4.35             |
|                  | 5                        | 3.78         | 3.87        | 3.95             | 3.85         | 3.93        | 4.02             | 4.20                                                     | 4.28        | 4.35             |
|                  | 10                       | 3.79         | 3.88        | 3.96             | 3.86         | 3.94        | 4.02             | 4.21                                                     | 4.28        | 4.36             |
|                  | 15                       | 3.80         | 3.89        | 3.97             | 3.86         | 3.95        | 4.03             | 4.21                                                     | 4.29        | 4.37             |
| 1987             | 0                        | 2.18         | 2.24        | 2.29             | 2.15         | 2.21        | 2.26             | 2.38                                                     | 2.43        | 2.47             |
|                  | 5                        | 2.19         | 2.24        | 2.30             | 2.16         | 2.21        | 2.26             | 2.38                                                     | 2.43        | 2.48             |
|                  | 10                       | 2.19         | 2.25        | 2.30             | 2.16         | 2.22        | 2.27             | 2.39                                                     | 2.43        | 2.48             |
|                  | 15                       | 2.19         | 2.25        | 2.31             | 2.17         | 2.22        | 2.27             | 2.39                                                     | 2.44        | 2.49             |
| 1990             | 0                        | 1.67         | 1.71        | 1.76             | 1.54         | 1.58        | 1.62             | 1.77                                                     | 1.80        | 1.84             |
|                  | 5                        | 1.67         | 1.72        | 1.76             | 1.54         | 1.58        | 1.62             | 1.77                                                     | 1.80        | 1.84             |
|                  | 10                       | 1.68         | 1.72        | 1.77             | 1.55         | 1.59        | 1.63             | 1.77                                                     | 1.81        | 1.84             |
|                  | 15                       | 1.68         | 1.72        | 1.77             | 1.55         | 1.59        | 1.63             | 1.77                                                     | 1.81        | 1.85             |

TABLE 21

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
HC EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 100%  
DRY BULB TEMPERATURE = 86°F, WET BULB TEMPERATURE = 77°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             | LDGT         |             | Composite Emission Factor |                                   |                              |
|------------------|--------------------------|--------------|-------------|--------------|-------------|---------------------------|-----------------------------------|------------------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Trailer<br>0 | Towing<br>5 | LDG Trailer<br>0          | All Eight Vehicles<br>Towing<br>5 | Combined<br>Percentage<br>10 |
| 1980             | 0%                       | 4.80         | 4.90        | 5.23         | 5.34        | 5.31                      | 5.40                              | 5.49                         |
|                  | 5                        | 4.81         | 4.91        | 5.24         | 5.35        | 5.32                      | 5.41                              | 5.50                         |
|                  | 10                       | 4.82         | 4.92        | 5.25         | 5.36        | 5.33                      | 5.42                              | 5.51                         |
|                  | 15                       | 4.83         | 5.93        | 5.27         | 5.38        | 5.34                      | 5.43                              | 5.52                         |
| 1982             | 0                        | 3.84         | 3.93        | 3.88         | 3.97        | 4.25                      | 4.33                              | 4.40                         |
|                  | 5                        | 3.85         | 3.93        | 3.89         | 3.97        | 4.25                      | 4.33                              | 4.41                         |
|                  | 10                       | 3.86         | 3.94        | 3.90         | 3.98        | 4.26                      | 4.34                              | 4.42                         |
|                  | 15                       | 3.86         | 3.95        | 3.91         | 3.99        | 4.27                      | 4.35                              | 4.43                         |
| 1987             | 0                        | 2.22         | 2.28        | 2.18         | 2.23        | 2.41                      | 2.46                              | 2.51                         |
|                  | 5                        | 2.23         | 2.29        | 2.18         | 2.23        | 2.42                      | 2.47                              | 2.51                         |
|                  | 10                       | 2.23         | 2.29        | 2.18         | 2.24        | 2.42                      | 2.47                              | 2.52                         |
|                  | 15                       | 2.24         | 2.29        | 2.19         | 2.24        | 2.42                      | 2.47                              | 2.52                         |
| 1990             | 0                        | 1.70         | 1.75        | 1.56         | 1.60        | 1.79                      | 1.83                              | 1.86                         |
|                  | 5                        | 1.71         | 1.75        | 1.56         | 1.60        | 1.79                      | 1.83                              | 1.87                         |
|                  | 10                       | 1.71         | 1.76        | 1.56         | 1.60        | 1.80                      | 1.83                              | 1.87                         |
|                  | 15                       | 1.71         | 1.76        | 1.57         | 1.61        | 1.80                      | 1.84                              | 1.87                         |

TABLE 22

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
CO EMISSION FACTORS (GRAMS/MILE)

AIR CONDITIONING USAGE = 0%  
DRY BULB TEMPERATURE = 71°F, WET BULB TEMPERATURE = 66°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             |                  | LDGT         |             |                  | Composite Emission Factor |                 |                                                 |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|---------------------------|-----------------|-------------------------------------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0          | LDG Towing<br>5 | All Eight Vehicles Combined<br>Percentage<br>10 |
| 1980             | 0%                       | 48.24        | 52.56       | 56.88            | 47.31        | 51.31       | 55.31            | 54.65                     | 58.54           | 62.43                                           |
|                  | 5                        | 48.79        | 53.17       | 57.54            | 47.82        | 51.87       | 55.92            | 55.14                     | 59.09           | 63.03                                           |
|                  | 10                       | 49.34        | 53.77       | 58.20            | 48.34        | 52.44       | 56.53            | 55.64                     | 59.63           | 63.62                                           |
|                  | 15                       | 49.88        | 54.37       | 58.86            | 48.85        | 53.00       | 57.15            | 56.13                     | 60.17           | 64.21                                           |
| 1982             | 0                        | 40.41        | 44.63       | 48.85            | 38.17        | 42.07       | 45.97            | 46.36                     | 50.12           | 53.88                                           |
|                  | 5                        | 40.90        | 45.17       | 49.45            | 38.63        | 42.58       | 46.54            | 46.80                     | 50.61           | 54.42                                           |
|                  | 10                       | 41.39        | 45.72       | 50.05            | 39.09        | 43.10       | 47.11            | 47.24                     | 51.10           | 54.96                                           |
|                  | 15                       | 41.87        | 46.27       | 50.66            | 39.55        | 43.61       | 47.67            | 47.67                     | 51.59           | 55.50                                           |
| 1987             | 0                        | 28.74        | 32.65       | 36.55            | 22.88        | 25.74       | 28.61            | 30.22                     | 33.42           | 36.62                                           |
|                  | 5                        | 29.15        | 33.11       | 37.08            | 23.19        | 26.09       | 28.99            | 30.55                     | 33.80           | 37.05                                           |
|                  | 10                       | 29.56        | 33.58       | 37.60            | 23.49        | 26.44       | 29.38            | 30.89                     | 34.18           | 37.48                                           |
|                  | 15                       | 29.96        | 34.05       | 38.13            | 23.80        | 26.78       | 29.77            | 31.22                     | 34.56           | 37.91                                           |
| 1990             | 0                        | 25.59        | 29.30       | 33.00            | 17.17        | 19.52       | 21.87            | 24.07                     | 26.91           | 29.76                                           |
|                  | 5                        | 25.98        | 29.74       | 33.50            | 17.42        | 19.80       | 22.18            | 24.36                     | 27.25           | 30.14                                           |
|                  | 10                       | 26.36        | 30.18       | 34.00            | 17.66        | 20.08       | 22.50            | 24.66                     | 27.59           | 30.53                                           |
|                  | 15                       | 26.75        | 30.62       | 34.50            | 17.91        | 20.36       | 22.81            | 24.95                     | 27.93           | 30.91                                           |

TABLE 23

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
CO EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 50%  
DRY BULB TEMPERATURE = 79°F, WET BULB TEMPERATURE = 71°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             | LDGT         |             | Composite Emission Factor |                                            |
|------------------|--------------------------|--------------|-------------|--------------|-------------|---------------------------|--------------------------------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Trailer<br>0 | Towing<br>5 | LDG Trailer<br>0          | All Eight Vehicles Combined<br>Towing<br>5 |
| 1980             | 0%                       | 50.66        | 55.19       | 48.88        | 53.00       | 56.74                     | 60.81                                      |
|                  | 5                        | 51.23        | 55.83       | 49.49        | 53.58       | 57.26                     | 61.38                                      |
|                  | 10                       | 51.81        | 56.46       | 49.93        | 54.16       | 57.78                     | 61.95                                      |
|                  | 15                       | 52.38        | 57.09       | 50.46        | 54.73       | 58.29                     | 62.52                                      |
| 1981             | 0                        | 42.46        | 46.89       | 39.36        | 43.38       | 48.10                     | 52.04                                      |
|                  | 5                        | 42.97        | 47.46       | 39.83        | 43.91       | 48.56                     | 52.55                                      |
|                  | 10                       | 43.48        | 48.03       | 40.31        | 44.43       | 49.01                     | 53.06                                      |
|                  | 15                       | 44.00        | 48.60       | 40.78        | 44.96       | 49.47                     | 53.57                                      |
| 1987             | 0                        | 30.16        | 34.26       | 23.54        | 26.49       | 31.33                     | 34.68                                      |
|                  | 5                        | 30.59        | 34.75       | 23.86        | 26.84       | 31.68                     | 35.08                                      |
|                  | 10                       | 31.02        | 35.23       | 24.17        | 27.20       | 32.03                     | 35.48                                      |
|                  | 15                       | 31.44        | 35.72       | 24.49        | 27.55       | 32.39                     | 35.88                                      |
| 1990             | 0                        | 26.85        | 30.73       | 17.65        | 20.06       | 24.99                     | 27.97                                      |
|                  | 5                        | 27.25        | 31.20       | 17.90        | 20.35       | 25.30                     | 28.33                                      |
|                  | 10                       | 27.65        | 31.66       | 18.18        | 20.64       | 25.61                     | 28.68                                      |
|                  | 15                       | 28.06        | 32.12       | 18.40        | 20.92       | 25.92                     | 29.04                                      |
| 1982             | 0                        | 42.46        | 46.89       | 39.36        | 43.38       | 48.10                     | 52.04                                      |
|                  | 5                        | 42.97        | 47.46       | 39.83        | 43.91       | 48.56                     | 52.55                                      |
|                  | 10                       | 43.48        | 48.03       | 40.31        | 44.43       | 49.01                     | 53.06                                      |
|                  | 15                       | 44.00        | 48.60       | 40.78        | 44.96       | 49.47                     | 53.57                                      |
| 1989             | 0                        | 30.16        | 34.26       | 23.54        | 26.49       | 31.33                     | 34.68                                      |
|                  | 5                        | 30.59        | 34.75       | 23.86        | 26.84       | 31.68                     | 35.08                                      |
|                  | 10                       | 31.02        | 35.23       | 24.17        | 27.20       | 32.03                     | 35.48                                      |
|                  | 15                       | 31.44        | 35.72       | 24.49        | 27.55       | 32.39                     | 35.88                                      |
| 1990             | 0                        | 26.85        | 30.73       | 17.65        | 20.06       | 24.99                     | 27.97                                      |
|                  | 5                        | 27.25        | 31.20       | 17.90        | 20.35       | 25.30                     | 28.33                                      |
|                  | 10                       | 27.65        | 31.66       | 18.18        | 20.64       | 25.61                     | 28.68                                      |
|                  | 15                       | 28.06        | 32.12       | 18.40        | 20.92       | 25.92                     | 29.04                                      |

TABLE 24

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
CO EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 100%  
DRY BULB TEMPERATURE = 86°F, WET BULB TEMPERATURE = 77°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             |                  | LDGT         |             |                  | Composite Emission Factor<br>All Eight Vehicles Combined |             |                  |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|----------------------------------------------------------|-------------|------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0                                         | Towing<br>5 | Percentage<br>10 |
| 1980             | 0%                       | 53.40        | 58.18       | 62.95            | 50.64        | 54.90       | 59.17            | 59.11                                                    | 63.39       | 67.67            |
|                  | 5                        | 54.00        | 58.84       | 63.68            | 51.19        | 55.50       | 59.82            | 59.65                                                    | 63.98       | 68.32            |
|                  | 10                       | 54.61        | 59.51       | 64.40            | 51.73        | 56.10       | 60.47            | 60.19                                                    | 64.58       | 68.97            |
|                  | 15                       | 55.21        | 60.17       | 65.13            | 52.28        | 56.70       | 61.12            | 60.74                                                    | 65.18       | 69.62            |
| 1982             | 0                        | 44.79        | 49.46       | 54.12            | 40.72        | 44.87       | 49.02            | 50.08                                                    | 54.21       | 58.35            |
|                  | 5                        | 45.33        | 50.06       | 54.79            | 41.21        | 45.41       | 49.62            | 50.56                                                    | 54.75       | 58.94            |
|                  | 10                       | 45.87        | 50.66       | 55.45            | 41.70        | 45.96       | 50.22            | 51.04                                                    | 55.29       | 59.53            |
|                  | 15                       | 46.41        | 51.27       | 56.12            | 42.18        | 46.50       | 50.82            | 51.52                                                    | 55.82       | 60.13            |
| 1987             | 0                        | 31.79        | 36.11       | 40.43            | 24.30        | 27.34       | 30.37            | 32.62                                                    | 36.14       | 39.66            |
|                  | 5                        | 32.25        | 36.63       | 41.01            | 24.63        | 27.70       | 30.78            | 32.99                                                    | 36.56       | 40.13            |
|                  | 10                       | 32.70        | 37.14       | 41.59            | 24.95        | 28.07       | 31.19            | 33.36                                                    | 36.98       | 40.61            |
|                  | 15                       | 33.15        | 37.66       | 42.17            | 25.27        | 28.44       | 31.60            | 33.72                                                    | 37.40       | 41.08            |
| 1990             | 0                        | 28.30        | 32.39       | 36.49            | 18.20        | 20.69       | 23.17            | 26.06                                                    | 29.20       | 32.33            |
|                  | 5                        | 28.72        | 32.88       | 37.04            | 18.46        | 20.98       | 23.50            | 26.39                                                    | 29.57       | 32.75            |
|                  | 10                       | 29.15        | 33.37       | 37.59            | 18.72        | 21.28       | 23.84            | 26.72                                                    | 29.95       | 33.17            |
|                  | 15                       | 29.57        | 33.86       | 38.14            | 18.98        | 21.58       | 24.17            | 27.04                                                    | 30.32       | 33.59            |

TABLE 25

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
NO<sub>x</sub> EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 0%  
DRY BULB TEMPERATURE = 71°F, WET BULB TEMPERATURE = 66°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             |                  | LDGT         |             |                  | Composite Emission Factor |                                      |                              |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|---------------------------|--------------------------------------|------------------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0          | All Eight<br>Vehicles<br>Towing<br>5 | Combined<br>Percentage<br>10 |
| 1980             | 0%                       | 2.86         | 2.90        | 2.94             | 3.34         | 3.38        | 3.43             | 3.95                      | 3.98                                 | 4.02                         |
|                  | 5                        | 2.87         | 2.91        | 2.94             | 3.35         | 3.39        | 3.44             | 3.96                      | 3.99                                 | 4.03                         |
|                  | 10                       | 2.88         | 2.91        | 2.95             | 3.36         | 3.40        | 3.45             | 3.96                      | 4.00                                 | 4.03                         |
|                  | 15                       | 2.88         | 2.92        | 2.96             | 3.36         | 3.41        | 3.46             | 3.97                      | 4.00                                 | 4.04                         |
| 1981             | 0                        | 2.46         | 2.49        | 2.53             | 2.89         | 2.92        | 2.97             | 3.57                      | 3.61                                 | 3.63                         |
|                  | 5                        | 2.46         | 2.50        | 2.54             | 2.89         | 2.93        | 2.98             | 3.57                      | 3.61                                 | 3.64                         |
|                  | 10                       | 2.47         | 2.51        | 2.54             | 2.90         | 2.94        | 2.98             | 3.58                      | 3.61                                 | 3.65                         |
|                  | 15                       | 2.48         | 2.52        | 2.55             | 2.90         | 2.95        | 2.99             | 3.59                      | 3.62                                 | 3.66                         |
| 1987             | 0                        | 1.88         | 1.92        | 1.95             | 1.88         | 1.91        | 1.94             | 2.64                      | 2.67                                 | 2.70                         |
|                  | 5                        | 1.89         | 1.93        | 1.96             | 1.89         | 1.92        | 1.95             | 2.65                      | 2.68                                 | 2.71                         |
|                  | 10                       | 1.90         | 1.93        | 1.97             | 1.89         | 1.92        | 1.96             | 2.65                      | 2.68                                 | 2.71                         |
|                  | 15                       | 1.90         | 1.94        | 1.97             | 1.90         | 1.93        | 1.97             | 2.66                      | 2.69                                 | 2.72                         |
| 1990             | 0                        | 1.79         | 1.82        | 1.86             | 1.45         | 1.48        | 1.51             | 2.21                      | 2.23                                 | 2.26                         |
|                  | 5                        | 1.79         | 1.83        | 1.86             | 1.46         | 1.49        | 1.51             | 2.21                      | 2.24                                 | 2.26                         |
|                  | 10                       | 1.80         | 1.84        | 1.87             | 1.46         | 1.49        | 1.52             | 2.22                      | 2.24                                 | 2.27                         |
|                  | 15                       | 1.81         | 1.84        | 1.88             | 1.47         | 1.50        | 1.52             | 2.22                      | 2.25                                 | 2.28                         |

TABLE 26

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
NO EMISSION FACTORS (GRAMS/MILE)  
x AIR CONDITIONING USAGE = 50%  
DRY BULB TEMPERATURE = 79°F, WET BULB TEMPERATURE = 71°F

| Calendar<br>Year | Extra Load<br>Percentage | LDGV         |             |                  | LDGT         |             |                  | Composite Emission Factor<br>All Eight Vehicles Combined |             |                  |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|----------------------------------------------------------|-------------|------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0                                         | Towing<br>5 | Percentage<br>10 |
| 1980             | 0%                       | 3.08         | 3.12        | 3.16             | 3.50         | 3.54        | 3.59             | 4.14                                                     | 4.18        | 4.22             |
|                  | 5                        | 3.09         | 3.13        | 3.17             | 3.51         | 3.56        | 3.60             | 4.15                                                     | 4.19        | 4.22             |
|                  | 10                       | 3.10         | 3.14        | 3.18             | 3.52         | 3.57        | 3.61             | 4.16                                                     | 4.19        | 4.23             |
|                  | 15                       | 3.11         | 3.15        | 3.19             | 3.53         | 3.58        | 3.62             | 4.16                                                     | 4.20        | 4.24             |
| 1982             | 0                        | 2.65         | 2.69        | 2.73             | 3.01         | 3.06        | 3.11             | 3.73                                                     | 3.77        | 3.81             |
|                  | 5                        | 2.66         | 2.70        | 2.74             | 3.02         | 3.07        | 3.12             | 3.74                                                     | 3.78        | 3.81             |
|                  | 10                       | 2.66         | 2.70        | 2.74             | 3.03         | 3.08        | 3.12             | 3.75                                                     | 3.78        | 3.82             |
|                  | 15                       | 2.67         | 2.71        | 2.75             | 3.04         | 3.09        | 3.13             | 3.75                                                     | 3.79        | 3.83             |
| 1987             | 0                        | 2.03         | 2.07        | 2.11             | 1.96         | 2.00        | 2.03             | 2.76                                                     | 2.79        | 2.83             |
|                  | 5                        | 2.04         | 2.08        | 2.12             | 1.97         | 2.00        | 2.04             | 2.77                                                     | 2.80        | 2.83             |
|                  | 10                       | 2.05         | 2.09        | 2.12             | 1.98         | 2.01        | 2.05             | 2.77                                                     | 2.81        | 2.84             |
|                  | 15                       | 2.06         | 2.09        | 2.13             | 1.98         | 2.02        | 2.05             | 2.78                                                     | 2.81        | 2.84             |
| 1990             | 0                        | 1.93         | 1.97        | 2.00             | 1.52         | 1.55        | 1.57             | 2.31                                                     | 2.34        | 2.37             |
|                  | 5                        | 1.94         | 1.98        | 2.01             | 1.52         | 1.55        | 1.58             | 2.32                                                     | 2.35        | 2.38             |
|                  | 10                       | 1.95         | 1.98        | 2.02             | 1.53         | 1.56        | 1.58             | 2.32                                                     | 2.35        | 2.38             |
|                  | 15                       | 1.95         | 1.99        | 2.03             | 1.53         | 1.56        | 1.59             | 2.33                                                     | 2.36        | 2.39             |



TABLE 27

SENSITIVITY OF THE MOBILE2 EMISSION FACTORS  
TO VARIATIONS IN AIR CONDITIONING USAGE, EXTRA VEHICLE LOADS,  
AND THE PERCENTAGE OF VEHICLES TOWING TRAILERS  
NO. EMISSION FACTORS (GRAMS/MILE)  
AIR CONDITIONING USAGE = 100%  
DRY BULB TEMPERATURE = 86°F, WET BULB TEMPERATURE = 77°F

| Calendar<br>Year | Extra Load<br>Percentage | LDCV         |             |                  | LDGT         |             |                  | Composite Emission Factor |                           |                              |
|------------------|--------------------------|--------------|-------------|------------------|--------------|-------------|------------------|---------------------------|---------------------------|------------------------------|
|                  |                          | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | Trailer<br>0 | Towing<br>5 | Percentage<br>10 | LDG Trailer<br>0          | All Eight<br>Trailer<br>0 | Combined<br>Percentage<br>10 |
| 1980             | 0%                       | 3.30         | 3.35        | 3.39             | 3.66         | 3.71        | 3.76             | 4.34                      | 4.38                      | 4.42                         |
|                  | 5                        | 3.31         | 3.36        | 3.40             | 3.67         | 3.72        | 3.77             | 4.34                      | 4.38                      | 4.42                         |
|                  | 10                       | 3.32         | 3.36        | 3.41             | 3.68         | 3.73        | 3.78             | 4.35                      | 4.39                      | 4.43                         |
|                  | 15                       | 3.33         | 3.37        | 3.42             | 3.69         | 3.74        | 3.79             | 4.36                      | 4.40                      | 4.44                         |
| 1982             | 0                        | 2.84         | 2.89        | 2.93             | 3.15         | 3.20        | 3.25             | 3.90                      | 3.94                      | 3.98                         |
|                  | 5                        | 2.85         | 2.90        | 2.94             | 3.16         | 3.21        | 3.26             | 3.91                      | 3.95                      | 3.99                         |
|                  | 10                       | 2.86         | 2.90        | 2.95             | 3.17         | 3.22        | 3.27             | 3.92                      | 3.96                      | 4.00                         |
|                  | 15                       | 2.87         | 2.91        | 2.96             | 3.18         | 3.23        | 3.28             | 3.92                      | 3.96                      | 4.00                         |
| 1987             | 0                        | 2.19         | 2.23        | 2.27             | 2.05         | 2.09        | 2.12             | 2.88                      | 2.92                      | 2.95                         |
|                  | 5                        | 2.19         | 2.23        | 2.28             | 2.06         | 2.09        | 2.13             | 2.89                      | 2.92                      | 2.96                         |
|                  | 10                       | 2.20         | 2.24        | 2.28             | 2.06         | 2.10        | 2.14             | 2.90                      | 2.93                      | 2.97                         |
|                  | 15                       | 2.21         | 2.25        | 2.29             | 2.07         | 2.11        | 2.14             | 2.90                      | 2.94                      | 2.97                         |
| 1990             | 0                        | 2.08         | 2.12        | 2.16             | 1.58         | 1.61        | 2.42             | 2.42                      | 2.45                      | 2.48                         |
|                  | 5                        | 2.09         | 2.12        | 2.16             | 1.59         | 1.62        | 1.65             | 2.43                      | 2.46                      | 2.49                         |
|                  | 10                       | 2.09         | 2.13        | 2.17             | 1.59         | 1.62        | 1.65             | 2.43                      | 2.46                      | 2.50                         |
|                  | 15                       | 2.10         | 2.14        | 2.18             | 1.60         | 1.63        | 1.66             | 2.44                      | 2.47                      | 2.50                         |